MODERN IRISH TRADE AND INDUSTRY

E. J. RIORDAN

IRENE GREENE OWEN ANDREWS

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561 Surf St
Chicago.

Oct. 1924

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THE IRISH

we think there is much to be sa room for this purpose and not arts and crafts with boot polishes and exh s of all kinds of commodities from industrialists here or in Great Britain, which should be in the big hall by themselves. If the Royal Dublin Society decided on such a display it should let the workers know a year before that they may be prepared to exhibit their best work. There are these three directions in which a way might be found to make the fine work done by Irish craftsmen known as it should be. First, there is the linking up of the Churches with those who devote themselves to ecclesiastical art, and for this we think there should be a special organisation. Then we think the Minister for Industry and Commerce might do something in the United States, which is the richest market to be explored, either to arrange exhibitions or even to finance a shop for the sale of such work in New York; and, lastly, we think the Royal Dublin Society should revive those exhibitions of Irish arts and crafts which were so attractive years ago. We really have some first-class workers in the arts and crafts, who do work which would attract attention anywhere if it was properly displayed, and the Minister might very well ask some person familiar with what is done, a man of energy and business ability, to explore the possibilities of exhibition or sale in the United States and Great Britain. We are certain there are many wealthy and cultivated Irish-Americans who would be delighted if Ireland could be known for other things than its politics. Irish writers and dramatists are known over Europe and America, but little is known of Irish artists, of the workers in the arts and crafts. We cannot hope to compete with the rest of the world in mass production, but there is always a market for work of fine quality. There must be organisation to bring Irish work to those rich markets, and this is something the Department might very properly undertake.

MODERN IRISH TRADE AND INDUSTRY

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BY

E. J. RIORDAN

SECRETARY THE IRISH INDUSTRIAL DEVELOPMENT ASSOCIATION

WITH AN HISTORICAL INTRODUCTION
BY
GEORGE O'BRIEN, LITT.D., M.R.I.A.

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DEDICATION

TO

JOSEPHINE RIORDAN

. . . .

"CHOKING TARES WITH THE WHEAT ARE SOWN:
NOT WITH A PAGE AM I WELL CONTENT.
YET, FOR THE SAKE OF THE HAND THAT WRIT
AND THE FLUSH'D BEYOND THAT ELUDED IT,
TAKE—FOR I GREATLY MEANT.

. . . .

"SO—FOR THE YEARS THAT HAVE KNIT US TWAIN,
YEARS WHERETHROUGH I HAVE FAILED TO LEARN
THAT NEED OF MINE CAN E'ER DRAIN YOU DRY
OF COUNSEL, COMFORT, AND SYMPATHY—
TAKE—AS A POOR RETURN."

W. E. B. HENDERSON

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PREFACE

IT is a rare experience to find any person, even an Irish business man, who possesses what approximates to exact knowledge of the modern history of Irish trade and industry. This lack of knowledge is to a large extent ascribable to the fact that no systematic records of Irish trade or industry were kept during the greater part of the past century. Consequently, unless one were able to devote a considerable amount of time and labour in searching for and studying such scattered *data* as are available, a wide knowledge of the subject was unattainable.

The aim of the present work is to supply the reader with (as far as it is possible to do so) a connected record showing the main factors which constitute the history of the subject from (about) the period 1850 to our own day; whilst Dr. O'Brien's historical introduction outlines the earlier history from the seventeenth to the middle of the nineteenth century.

I am deeply indebted to Mr. John Hooper, Superintendent, Statistics and Intelligence Branch, Department of Agriculture and Technical Instruction for Ireland, for the valuable assistance he gave me in the compilation of Part I of Chapter I of this book, as well as for having placed at my disposal works of reference from which I obtained certain statistics embodied herein.

E. J. RIORDAN

MERRION HOUSE,
BLACKROCK,
CO. DUBLIN.
April, 1920.

PREFACE

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E. J. RIORDAN.

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INTRODUCTION

NOTE

THIS short historical introduction is confined to an account of industries other than agriculture. The reason for the omission of this, the most important of the industries of Ireland and the largest factor in her trade, is that it would be impossible to give any satisfactory account of the history of Irish agriculture in the space at my disposal without compressing the account of non-agricultural industries into a form which would render it even more inadequate than it is at present. The land and its industries have always occupied such a prominent place in Irish life that a history of Irish agriculture would be of necessity something not very far removed from an economic—and, indeed, a political—history of Ireland. If any apology be needed for the course I have adopted, the reader may be reminded that there are available several books which treat of the Irish land problem, both before the Union and in the period 1800–50; whereas the non-agricultural industries of the country have not received the same attention from historians. I have therefore thought it well to confine this introduction to the subject upon which information is less readily accessible; and, in further pursuance of the same design, have passed very rapidly over the account of the period before the Union, further details of which can be learnt in other books, and have devoted the greater portion of the introduction to the fifty years after the Union, the industrial history of which had been hitherto somewhat neglected. Narrowness of space, however, condemns the treatment even of the latter period to be unsatisfactory and inadequate. I have consequently contented myself with giving a very brief summary of the progress of each of the principal industries after the Union, and a still briefer—and, I fear, still more inadequate—account of the main factors which tended to retard that progress. I hope to deal with this matter at greater length, and in a more satisfactory manner, on another occasion.

G. O'B.

MODERN IRISH TRADE AND INDUSTRY

HISTORICAL INTRODUCTION

By George O'Brien

THE beginnings of modern Ireland, so far as trade and industry are concerned, may be said to date from the opening years of the seventeenth century. It is quite unnecessary to consider the condition of Irish trade and industry before that date, even if it were possible to reach any conclusion on a subject upon which many eminent historians have differed. All that need be said is that, whatever may have been the economic condition of Ireland in the sixteenth century—whether on the one hand it was poor and undeveloped, or on the other hand was rich and flourishing—the whole economic structure of society was broken down by the disastrous Elizabethan wars. During the last quarter of the sixteenth century the country was deliberately and systematically devastated; farms were wasted, and farmhouses razed to the ground; and trade was completely paralysed. When peace was at last declared on the accession of James I, a fresh start had to be made in Ireland.

The seventeenth century in Ireland may be described as a time of orderly and rapid economic progress, interrupted at intervals by political cataclysms. The first two Stuarts and their Irish representatives strenuously laboured to increase the wealth of Ireland, with a view to augmenting the royal revenue. It is not pretended that any gratitude or credit is due to the Stuarts for their efforts to develop Irish resources; on the contrary it is obvious that their efforts were dictated by purely selfish motives, and that their in sympathy, one cannot help regretting that the economic policy of the Patriot Parliament was not carried into effect.

The year 1689 witnessed a repetition on a smaller scale of what had happened in 1641. The rebuilding of the economic life of Ireland was once more interrupted by an internecine war. The material damage caused by the Revolutionary War was very extensive; but at the same time it was not at all to be compared with the devastation of the Rebellion. Probably the country would have recuperated very rapidly from the effects of the Williamite campaign had the peace which followed been a real peace and not, what it was in fact, a "war after war." Nothing is more striking in a survey of the progress of events in Ireland during the seventeenth century than the contrast between the rapid recovery which the country made after the first two cataclysms of the century, and the apparent lifelessness which it displayed after the third. As it cannot be suggested that the character of the people had deteriorated in the interval, or that the natural resources of the country had diminished, we are driven to the conclusion that the change must have been the result of some external cause.

The fact is that there was a fundamental change in the political balance of power in England at the Revolution. The English Parliament had forcibly succeeded in obtaining the determining voice in the formation of policy, and the power of the King in this respect was definitely limited. We have seen that the policy of the English Parliament since the Restoration had been unmistakably hostile to the development of Irish trade, and that body was now in a position to carry its policy into action. Indeed, the reasons for this policy had been considerably strengthened by the events which had occurred at the Revolution; James II had called in the aid of Irish troops to aid him in his struggle against his English subjects; and the Parliamentary victory had been delayed and rendered more expensive by the stand which the King made in Ireland.

The importance of this aspect of the Parliamentary policy after the Revolution is strongly emphasized by Dr. Cunningham in his "Growth of English Industry and Commerce":—"Fortunately the economic jealousy with which Englishmen regarded Irish progress was immensely stimulated by considerations of a constitutional character. The English Parliament were keenly suspicious of anything that might tend to increase the royal powers. Charles I, Charles II, and James II had all suffered from the distrust of their subjects; and William III, even though he had been invited to come over, did not succeed in inspiring confidence. As is well known, he bitterly resented the treatment he received. Since Ireland was an independent kingdom the English House of Commons had no direct control over its affairs; and there was constant uneasiness lest any power which the King acquired in Ireland should be used without the concurrence of the English Parliament, or even against English liberties. Twice within the seventeenth century serious attempts had been made to develop the resources of Ireland—by Strafford, and under Charles II and James II; in both cases the result had been that the King had found himself in possession of power that seemed to menace his English subjects. Under these circumstances there was the strongest political reason for dreading any development of the wealth of Ireland that took place at the expense of England, since this really implied an increase of the influence of the Crown at the expense of that of Parliament."

It must not be supposed that this jealousy of the royal power was the only motive which operated to make the English Parliament hostile to Irish trade. In addition there were the dominant mercantilist ideas that one country's riches meant its neighbour's poverty, and that the great aim of statesmanship should be the development of an export trade in manufactured commodities. Additional weight was given to these considerations by the fear of a war between England and France, in the event of which the latter might find a most valuable ally in a rich and prosperous Ireland.

As we have seen, the English Parliament under the Stuarts had been unable fully to carry its Irish policy into effect by reason of its impotence to interfere with the foreign trade of Ireland. It was therefore necessary that an attempt should be made to assert the right of the English Parliament to legislate for Ireland, and we accordingly find that in the years immediately following the Revolution such an attempt was made, and the principle contended for was successfully, though unconstitutionally, established. Here, as elsewhere, we are forcibly struck by the close connexion between Ireland's economic progress and her political status.

Having thus asserted its power to legislate for Ireland, and consequently to regulate Irish foreign trade, the English Parliament promptly proceeded to strike a deadly blow at Irish industrial development. In the latter half of the seventeenth century the most important Irish industry was undoubtedly the woollen manufacture. Encouraged by Ormond, it had grown rapidly during the reign of Charles II, and after the Revolution it showed signs of attaining still more considerable proportions. At the same time it had not developed to anything like a point when it could injure the long-established English woollen manufacture in foreign markets, and therefore in so far as its suppression was due to the jealousy of the English woollen manufacturers, that jealousy was prompted rather by the fear of future than by the experience of past competition.

It is almost unnecessary to state that the exportation of woollen goods from Ireland to any part of the world except England (from which they were virtually excluded by prohibitive duties) was forbidden in 1698. Much weight has been sometimes laid on the fact that the suppression of the woollen industry was compensated for by the promised encouragement of the linen industry in its place. The answer to this suggestion is obvious. There may be some doubt as to the precise degree of development the linen industry had attained in Ireland at the end of the seventeenth century. It had certainly been securely established for many years; and it is probable that its importance was greater than is generally supposed. But, whatever its stage of development may have been, the promise that it would be encouraged in the future was no consideration for the destruction of another industry, the success of which was in no way irreconcilable with the progress of the linen industry at the same time. If the latter industry was undeveloped and practically non-existent in 1698, then the transaction was the compulsory relinquishment of a certainty in exchange for an experiment. If, on the other hand, the linen industry was already well established, then the pretended consideration for the suppression of the woollen industry was no consideration at all.

It must not be forgotten that the suppression of the woollen industry was a blow aimed at the interests of the Irish Protestants who were in possession of a practical monopoly of the manufacture. The degradation of the Catholics was entrusted to the Irish Parliament, which had been thoroughly Protestantized after the Revolution; but the English Parliament itself undertook the degradation of the Protestant population of Ireland.

The suppression of the woollen manufacture was the most important landmark in the whole economic history of Ireland; it did more to shape the course of Irish economic life in succeeding years than any other single event, and was the most fruitful source of the dreadful distress that characterized the eighteenth century.

In the seventeenth century a terrible crop was sown, of which the harvest was reaped in the eighteenth. The first eighty years of the latter century was a time of uninterrupted industrial depression. In the ordinary course the woollen industry would have been the staple manufacture of Ireland, but the development of this industry was prevented by the prohibition of the export of Irish woollens. Great numbers of Irish woollen weavers emigrated to the Continent of Europe and to America, and those who remained in Ireland were plunged in the deepest misery and want owing to the paralysis of the manufactures on which they were employed.

Although the restrictive legislation of the English Parliament succeeded in inflicting an incalculable injury on Ireland, it did not benefit England. On the contrary, the English woollen industry suffered severely as a result of the Act of 1698. The Irish weavers who emigrated contributed their skill to England's continental rivals; and a great quantity of Irish wool, for which there was no demand in Ireland, was smuggled abroad to France and Holland, where it helped materially to develop the woollen manufacture. An English pamphleteer, writing in 1735, said that the destruction of the Irish woollen industry had had the following five consequences: (1) the emigration of twenty thousand manufacturers at once from Ireland; (2) their retreat into foreign countries; (3) the establishment thereupon of the woollen manufacture in almost all parts of Europe; (4) the exportation of Irish and English wool; and (5) the gradual and notorious decay of the English woollen trade from that hour. "The single competitor was ousted from the field," says Dr. Cunningham in the work from which we have already quoted, " but it was a barren triumph, since our statesmen unwittingly called into being new rivals in the neighbourhood of the best markets."

It must not be supposed that the woollen manufacture was the only Irish industry attacked during the eighteenth century. On the contrary, industry after industry was suppressed as soon as it showed any signs of vitality. The export of Irish glass was prohibited in 1746 ; and the promising Irish brewing industry was paralysed by the British Parliament's legislation with regard to hops.

As we have already seen, the encouragement of the Irish linen industry was stated to be the consideration for the suppression of the woollen, and it has sometimes been concluded from the fact that the linen industry made considerable progress during the eighteenth century that this promise of encouragement was carried into effect. A further study of the subject, however, establishes conclusively that this promise was dishonoured ; and that the progress of the Irish linen industry took place, not in any way because of, but rather in spite of the action of the British Parliament. At the end of the seventeenth century the linen industry of Great Britain had shown no sign of developing, and it was therefore thought that, if the Irish linen industry were to be encouraged, no injurious competition would be experienced by any British industry. Shortly afterwards, however, when the Scotch linen manufacture showed signs of developing, the whole policy of the British Parliament towards the Irish linen industry was modified, and many vexatious restraints were imposed on the manufacture which had been promised encouragement. The discouragement which the industry received from the British was more than counterbalanced by the encouragement which it received from the Irish legislature, and it consequently prospered, and succeeded in providing employment for great numbers who would otherwise have been completely destitute.

The only industry other than the linen that flourished during the early part of the eighteenth century was the provision trade, which attained considerable proportions. This industry, though productive of much benefit to those immediately concerned in it, was rather a burden than a benefit to the country as a whole, as it increased the temptation to convert tillage land into pasturage, and consequently to decrease the amount of employment available for the rural population.

Ireland, it may be said, therefore, depended for its livelihood on two industries. This was a state of affairs which might have continued indefinitely had those two staple industries remained in a flourishing condition. If, however, any occasion arose in which one of these industries received a severe set back, one half of the industrial population would experience extreme want; if both encountered a period of depression simultaneously, the whole country would be plunged into acute distress.

This coincidence actually occurred in the decade 1770–80. The linen industry, which had been so prosperous, experienced a period of acute depression, caused by the political unrest in the American colonies and banking failures. At the same time the provision industry, upon which a large part of the population of the south and west depended for a livelihood, was temporarily paralysed by a series of embargoes on the exportation of Irish provisions imposed by the English Privy Council.

This double misfortune, though productive of much immediate suffering and distress, ultimately proved of the utmost benefit to Irish commerce, as it focused public opinion upon the injustice of the existing situation so strongly that a repeal of the restrictive laws became the subject of immediate demand. The details of the agitation in favour of a "free trade" need not here be recalled; suffice it to say that in 1780, after the English Parliament had unsuccessfully endeavoured to meet the Irish demand by partial concessions, the restrictions on Irish commerce with the British colonies were wholly repealed, and the right of Ireland freely to trade with foreign countries was completely admitted.

The intimate connexion between political freedom and economic progress in Ireland is strikingly illustrated by the events which took place in the years immediately following the relaxation of the commercial restraints. No sooner had Ireland obtained a free trade than it was realized by the Irish patriotic party that what Great Britain had bestowed Great Britain might take away, and that Ireland could not securely enjoy her new advantages so long as the overruling power of the British Parliament to legislate for Ireland was acknowledged. The commercial victory of 1780 was consequently the immediate occasion of the renewed agitation which resulted in the constitutional victory of 1782. The part played by commercial considerations in the constitutional struggle of these fateful years cannot be too strongly emphasized.

The eighteen years of Grattan's Parliament constituted a period of great industrial and commercial progress in Ireland. In 1790 the Chancellor of the Exchequer said that it was his pride and happiness to declare that he did not think it possible for any nation to have improved more in her circumstances than Ireland had done since 1784; and in 1795 the Address to the Throne referred to "the unexampled prosperity and growing resources of the nation." "What is the state of Ireland at this moment?" exclaimed a member of the House of Commons in the latter year. "A state of unexampled prosperity; . . . the manufacturer finds employment and payment to his satisfaction." A remarkable account of the development of Ireland under Grattan's Parliament is to be found in Foster's speech against the Act of Union: "The general export (from Ireland) rose in seventy-eight years to 1782, from one to five, and in fourteen years, after 1782, from five to ten. The linen export in the seventy-eight years rose from one to thirty-two, and in the last fourteen, from thirty-two to eighty-eight; so that the general export rose as much in the first fourteen years as it had done during the preceding seventy-eight, and linen exports trebled in that time." A large and representative meeting of the gentlemen, clergy, and freeholders of Dublin, held in 1799, unanimously adopted a resolution to the effect that "The Legislative Independence of Ireland has been the means of improvement and prosperity to this country rapid beyond example," and even Castlereagh admitted that "no power in Europe had made more rapid strides in wealth and general happiness in the last fifteen years than Ireland." Newenham was of opinion that "The progress of Ireland towards national opulence subsequently to the independence of her trade, especially of her legislative independence, was extremely rapid."

The export of raw wool totally ceased, and the woollen manufacture showed some signs of reattaining its former prosperity; the cotton manufacture grew at a very rapid pace, and in a few years reached considerable dimensions; the progress of the linen manufacture was uninterrupted; the brewing industry was re-established in Ireland, without however in any way injuring its flourishing rivals, the distillers; the glass manufacture became a serious rival to that of England; and, in spite of the greatly increased export of corn, the provision trade did not suffer, but on the contrary continued to expand. Several small industries also made successful progress, and Ireland gave promise of being soon able to supply herself with many commodities which she had previously imported. "Attempts were made to develop the industries of the country," writes Dr. Cunningham; "Irish trade increased enormously for a time."

The fact that Grattan's Parliament achieved so much is remarkable; but the fact that it did not achieve more has been sometimes used as an argument to excuse its abolition. It must not be forgotten that it was impossible to do more than a certain amount in twenty years, and that Ireland was, owing to the low condition to which it had sunk, and the evil land system, an exceptionally difficult country to regenerate economically. When the commercial restraints were relaxed Arthur Young foretold that it would be half a century before Ireland would feel the full benefit of her liberation; and Adam Smith made a similar forecast. "I cannot believe," the latter wrote to Dundas, "that the manufacturers of Great Britain can for a century to come suffer much from the rivalship of those of Ireland, even though the Irish should be indulged in a free trade. Ireland has neither the skill nor the stock which would enable her to rival England, and, though both may be acquired in time, to acquire them completely will require the operation of little less than a century." Surely the fact that the Irish Parliament failed to achieve in twenty years progress which such great economists prophesied could only be achieved in fifty should not be used as a reproach.

The theory has been advanced in recent years that the undoubted industrial development that took place under Grattan's Parliament was due, not to any action on the part of Parliament, but to the operation of the Industrial Revolution. In answer to this suggestion it may be stated that no revolution took place in the methods of conducting industry in Ireland, with the one exception of the cotton industry, until the nineteenth century; and that not one of the features which went to make up that great change in the manufacturing life of Great Britain, which is known as the Industrial Revolution, had any counterpart in Ireland during the period of Grattan's Parliament. The complaint that Grattan's Parliament did not devote sufficient attention to the condition of the workers, and that the latter derived little or no benefit from the industrial progress, is simply a repetition of the universally admitted fact that more regard was paid by eighteenth century statesmen and economists to the volume of production than to equitable distribution.

After 1780 Great Britain and Ireland stood on practically equal terms with regard to the prosecution of foreign and colonial trade, but the trade between Great Britain and Ireland—"the channel trade" as it was called—was still impeded by many restraints and protective duties. The abolition of these prohibitions and the lowering of these duties were the objects aimed at by Pitt's famous Commercial Propositions of 1785. It is unnecessary to recount the history of the negotiations to which Pitt's proposals gave rise, suffice it to say that the original scheme, having been accepted by the Irish Parliament, was wrecked by the fears and jealousy of the English manufacturing interests; and that the amended proposals were such that Ireland could have only purchased the doubtful commercial benefits they conferred by a sacrifice of her dearly-won legislative independence. It is interesting to observe that the principal argument with which Pitt urged the British Parliament to accept his original propositions was that they could not be productive of any advantage to Ireland. The possibility that Irish manufacturers could seriously compete in the British market he emphatically denied, and the fear that British manufacturers would employ their capital in Ireland he brushed aside as a groundless fiction of the imagination.

Pitt's arguments on these points are interesting in view of the terms of the Act of Union which he succeeded in passing fifteen years later. The commercial clause of that famous treaty provided that from and after the first of January, 1801, all prohibitions and bounties on the growth, produce, or manufacture of Great Britain or Ireland to the other should cease; and that all articles produced or manufactured in either country should be imported from each country to the other free from duty, but that for a period of twenty years from the Union certain enumerated articles —the principal of which were apparel, cottons other than calicoes and muslins, glass, haberdashery, hats, pottery, saddlery, silk goods, and stockings—should be subject to a ten per cent *ad valorem* duty in passing from one country to the other ; the woollen manufacture should during the same period continue to pay the existing duties on their importation into Ireland ; that salt and hops should pay on importation into Ireland from Great Britain the duties then payable on their importation into Ireland ; and that coals should be subject to burdens not exceeding those to which they were then subject. A special exception was made in favour of calicoes and muslins by the provision that these goods on being exported from one country to the other should continue to pay the duties then payable on their importation into Ireland from Great Britain, and that these duties should be gradually reduced until they became extinguished in 1821. Special provision was made for the imposition of countervailing duties when the inland excise duties payable on an article in the two countries were different.

It will be seen that the changes effected by the Act of Union were practically identical with those proposed by the Commercial Propositions, with the important addition that the later measure also deprived the Irish Parliament of the power of altering the new arrangements if they were found unsatisfactory in practice. It is therefore difficult to understand how Pitt, in view of his utterances in 1785, could have thought that the Act of Union would benefit Ireland commercially. The fact that there was practically no opposition to the Union from any manufacturing interest in Great Britain is full of significance. The concessions of 1780 and the Commercial Propositions had met with the bitterest opposition from those engaged in almost every industry in Great Britain, but the proposals for the Union met with no such opposition except from the woollen manufacturers, whose dislike to the measure, however, according to Dr. Cunningham, was due less to jealousy of possible Irish competition than to the belief that English wool, if freely admitted to Ireland, would be clandestinely exported thence to the continent and would assist the woollen manufacturers in France and the Low Countries. This striking change in the attitude of the British manufacturers is very significant, as it shows that they did not fear any Irish competition in the British market, and that they may have hoped to improve their Irish trade.

The fact of course is that the Union was a measure dictated almost altogether by political motives, and it cannot be pretended for a moment that it was intended to confer any commercial benefit on Ireland. As far as intercourse with foreign countries and the colonies was concerned, Ireland already enjoyed free trade, and the only trade which was opened by the Act of Union was the channel trade between Ireland and Great Britain. This was done by providing that the duties on the importation of goods from each country to the other should be considerably reduced, and fixed at the same rate for goods travelling in each direction. The result of this was to create a nominal equality where no real equality existed. The manufactures of Ireland, though progressing, were still comparatively undeveloped, and were urgently in need of artificial encouragement in order to enable them to attain a condition in which they could successfully compete on equal terms with those of Great Britain. The result of equalizing the duties in the two countries was that, while the Irish manufacturer was no more able than before to obtain a substantial footing in the British market, he was placed in considerable danger of losing his position in the Irish market. The principal articles of Irish manufacture, linen and provisions, were already freely admitted into Great Britain, and therefore the only commodities to which an entry was granted for the first time were articles which could not derive any benefit from their admission.

It was suggested by supporters of the Union that one result of that measure would be that English capitalists would be more ready to invest money in Ireland owing to the greater security to life and property which the improved form of government would produce. In the event, no such consequence attended the Union. Sir George Cornewall Lewis, in his report on the state of the Irish poor in Great Britain in 1836, drew attention to the fact that British capitalists were even then afraid to invest money in Ireland owing to the insecurity of property in that country. Either Pitt's judgment of the future was sadly defective, or else he did not himself believe in the glowing future which he pictured.

The commercial clauses of the Union are a good example of the high-handed way in which Irish interests have always been dealt with by British statesmen. The policy which was found convenient for Great Britain was then, as at all times before and since, imposed on Ireland, in utter disregard of the fact that the interests of the two countries were not identical. So long as a policy of Parliamentary Colbertism was considered desirable to place British industry on a substantial and self-reliant footing, such a policy was carried into effect, with admittedly good results. The policy of Colbertism was found to be no longer necessary, and consequently was abandoned by the British Parliament about 1780, which was the very time that the Irish Parliament first obtained an opportunity of pursuing such a policy with regard to the industries of Ireland. Such a policy was in fact pursued, and with great success, so far as it was allowed to proceed; but it was interrupted before it had had time to place the industries of the country in a position when it could be safely discontinued. Thus the British Parliament refused to allow the Irish Parliament to do for Ireland what it had itself done so successfully for Great Britain; and insisted on treating Irish manufactures as if they had reached the same level of independence as British—a course full of obvious injustice in the circumstances of the two countries.

The ten per cent duties on the channel trade were retained until 1821. Some few of them were further extended till 1825, but the greater number of them were allowed to lapse in 1821. The Government proposed to extend the duties for a further period of twenty years, with reductions of one quarter at the end of each five years, but this proposal provoked strong opposition in the manufacturing districts of Great Britain. A resolution protesting against it was passed by the Manchester Chamber of Commerce, and a petition against it presented to Parliament by the merchants of Liverpool. In 1825, consequently, the duties were allowed to lapse, in spite of the opposition of a large body of Irish manufacturers. This is a typical instance of the way in which, since the Union, when Irish and British interests differed, the latter were consulted. In 1823 the import duties on foreign goods imported into Great Britain and

Ireland were equalized, and a few years later Huskisson's legislation reduced the import duties on many foreign goods. These changes in the tariffs on foreign goods did not, however, affect Ireland so materially as the abolition of the duties on British manufactures. From 1825 onwards Great Britain and Ireland were treated as a fiscal unit in practically all respects. We shall now give some account of the most important industries, one by one, in the period following the Union.

The Irish *woollen* manufacture did not quickly recover from the effects of the restrictive legislation to which it had been so long subjected, and it is not surprising that it advanced but little during the period of Grattan's Parliament. In 1810, Wakefield found that it existed principally as a domestic industry, carried on to provide for the immediate wants of the peasantry, and that it did not exist on any large scale. "All the wool that is shorn is made into frieze and linsey by the proprietors of the stock, who card, spin, weave, dye, and consume it; and indeed their own wool is by no means sufficient to supply their wants. In the manufacturing of their cloth and stuffs these poor people display great ingenuity; instead of using oil in the weaving, they extract in the summertime the juice of the fern root, which they find to answer the purpose; and for dyeing they employ the indigenous vegetable productions of the country, such as twigs of the alder, walnut, and oak trees, elderberries, and so on."

The demands of the Irish woollen manufacturers not being sufficient to use up all the wool produced in the country, large quantities were exported to Norwich. Some broadcloth was manufactured at Carrick-on-Suir, but Wakefield was of opinion that "before this trade can be beneficially carried on there must be an intermediary manufacturer, known in England by the name of the rough cloth maker, who never attempts either to mill or dress the article." The manufacture at Carrick had given rise to one for blankets at Kilkenny, which was designed to carry off the coarse parts of the fleece, but both these manufactures were on the decline.

A small quantity of broad-cloth was made in Dublin, and a Yorkshire firm had recently opened a factory at Celbridge, where they had set up the shearing machinery, which the English weavers had not permitted to be erected in Yorkshire.

In 1810 a serious crisis occurred in the woollen industry. A large Government contractor failed, and his failure was followed by the bankruptcy of almost the entire woollen trade in Dublin. Credit was affected throughout the country; the banks refused to discount the woollen manufacturers' bills; and a general crash took place. Altogether twenty-two employers stopped work as a result of this crisis.

Several fresh attempts, however, were made to revive the woollen industry on a large scale, and to raise the quality of the goods produced. Considerable capital was invested in these enterprises. A big Leeds woollen manufacturer, named Willans, set up factories at Kilmainham and Rathfarnham, which afterwards gave extensive employment. It may be remarked in passing that a certain disposition was shown by British capitalists to invest money in the establishment of industries in Ireland as long as the small protective duties were retained, as, while these duties lasted, the products of their British factories were at a slight disadvantage in the Irish market, and it was thus worth their while to establish themselves in a locality where they could enter this important market on more favourable terms.

For a few years the woollen industry seems to have succeeded in achieving a reasonable degree of prosperity, although the export trade did not show any sign of increasing. It was stated in 1822 that forty-five manufacturers were engaged in the industry in and around Dublin, that 2,885 workpeople were employed, and that the annual value of the products amounted to £336,000. At the same time in the district embracing Cork, Kilkenny, and Carrick-on-Suir, 3,184 people were employed on the manufacture, the annual produce of which was valued at £200,000; while in the counties of Wicklow and Wexford 3,000 persons were employed, and the annual value of the products averaged £55,000.

In 1823 the small protecting duties on the import of woollens into Ireland were withdrawn. The effect of this change can but be described in the words of one of the witnesses at Mr. Otway's inquiry on the hand-loom weavers: " From 1812 to the withdrawal of the protecting duties, collisions or disputes with our workmen were of rare occurrence. . . . From 1821 to 1825 (the latter being the year in which the panic of November and December occurred in England) the trade was good and all the manufacturers fully employed. The protecting duties ceased in 1823; but it is remarkable that this withdrawal was hardly felt until the spring of 1826. This may be accounted for, first, by the trade in England being good up to November, 1825, and no surplus stock on hand; therefore no actual competition from thence in this market. Secondly, a gradual reduction in the high rate of wages previously paid, and which manufacturers had been for some time attempting, in order that the wages paid in Ireland should approximate more to those paid in Yorkshire, and which they to a considerable extent succeeded in effecting, calculating on the active competition which they would encounter from the English manufacturers when the protecting duties ceased.

"The panic of November and December, 1825, was severely felt in Ireland. The accumulated stocks of the British manufacturers were bought and thrown into this market in large quantities and at such low prices that no solvent person could attempt to compete with them. Irish manufacturers had not only to contend with a glutted market, but a reduction in the price of wool, and such was the reduction from these causes as seriously to affect the stock on hand; solvent manufacturers refused to sell at the ruinous prices then offered, and in general their manufacturing operations were discontinued. This cause was attended to them with great loss in another respect. Naps and coating, for women's wear, being the principal article manufactured, were by the low price of English cloth put out of fashion, cloths being generally substituted for them. The Irish manufacturer had therefore not only to contend with low prices, but with a change of fashion to a considerable extent. This period of depression had effect on the wages then paid (though much reduced). Masters in their own defence were obliged to offer, and the workmen accepted, wages which were considered as low as the cheapest district in Yorkshire. The summer of 1826 brought with it great suffering to the workmen in every branch of manufacture in and about Dublin."

There can be little doubt that the withdrawal of the protective duties caused serious damage to the Irish woollen industry. Undoubtedly the existence of the duties may have in some degree created a false feeling of security amongst those engaged in the industry in Ireland, and delayed the introduction of some improved processes; but on the other hand it certainly kept up wages, and also enabled the Irish manufacturer to compete with his British rivals with some hope of success in the Irish market. It must not be forgotten that the duties were protective in the strict sense of the word; they did not so much give the Irish manufacturer a preference in the Irish market over the English manufacturer, as place him on something like an equality with the latter. Building in Ireland was dearer than in England; the cost of erecting and repairing machinery was much greater; credit was more difficult and more expensive to obtain; coal was dearer; and wages were higher. Labouring as he did under all these disadvantages, the Irish manufacturer was in urgent need of some protection against his Yorkshire competitor, who was favoured by so many advantages; and the creation of a nominal equality between them really conferred a preference on the latter.

If this view of the effect of the withdrawal of the protecting duties be correct, it should modify the judgment which we might at first be inclined to pass upon the behaviour of the weavers. Undoubtedly the woollen manufacturer was frequently interrupted by strikes as the result of combinations amongst the operatives, but it must be remembered that these strikes were attempted, not so much to improve the condition of those who took part in them, as to arrest the disimprovement which they found thrust upon them. As long as the protecting duties lasted, it was found possible to pay Irish weavers a higher wage than that current in Yorkshire for the same class of work, but as soon as they were withdrawn the wages sank to the English level, and at a later date they sank far below it. The Irish woollen workers, who had been the best paid workers engaged in the woollen manufacture in the United Kingdom at the time of the Union, were the worst paid forty years later.

When Mr. Otway made his inquiry into the condition of the hand-loom weavers in 1840, he found that woollen manufacture was in a state of grave decline. The manufacture in and around Dublin had fallen off one half since 1822; the annual value of the products of the Cork, Kilkenny, and Carrick district, which in 1822 had amounted to £200,000, had sunk to £20,000; and the Wicklow flannel trade was "almost extinct." The manufacture of woollen cloth was confined to the city and suburbs of Dublin, and although improved methods were being introduced, the volume of the industry was deplorably small. There were only 250 woollen weavers employed in Dublin, and the average wages were only from eight to ten shillings a week. Dr. Kane in his "Industrial Resources of Ireland," written in 1845, states that "at present the woollen trade does not prove an exception to the general stagnation of industry which is so characteristic of the country." The suggestion that the conduct of the weavers was in any way responsible for the decay of the industry was vigorously contradicted by Mr. Willans, an English employer, who said: "The character of the woollen weavers is, I believe, generally good. We have found them anxious to be employed, and industrious whilst so, and never had occasion to complain of embezzlement, and in general they obey the directions as to their work with more cheerfulness and satisfaction than we have experienced from workmen in England."

The Irish *cotton* industry had made great progress during the last twenty years of the eighteenth century. In 1800, 13,500 persons were employed in this industry within a radius of ten miles around Belfast. Although the manufacture showed greater vitality in Ulster than in the south, it must not be supposed that it was in any sense confined to that province. On the contrary, it was widely diffused throughout the south. Wakefield found 1,300 looms at work at Collon, County Louth, and a very thriving factory at Stratford-on-Slaney, where 500 hands were employed at extremely good wages. The owners of the latter factory had originally come from Paisley to Hillsborough, but they could not get a lease for their premises, and therefore moved to Stratford. This throws an interesting sidelight on the intimate connexion that existed between the Irish land system and Irish industries, and on the power which the landlords possessed to impede the industrial progress of the localities over which they ruled. The manufacture of muslins was carried on at Mountmellick and Bandon.

During the first twenty years after the Union the cotton industry made great strides in Ireland, and attracted many weavers from the linen industry on account of the high wages which it offered. In 1816 the high protecting duties on the importation of cotton goods into Ireland were withdrawn, and an *ad valorem* duty of ten per cent substituted in their place. In 1823 even this low duty was repealed. The question of how far the removal of the duties operated injuriously on the cotton industry is a matter of some dispute. On the one hand the fact remains that the industry grew up during a period of protection, and fell into decay during a period of free trade; while, on the other hand, we have the statements of contemporary inquirers that the protecting duties did little or nothing to help the industry. It must be remembered, however, that the economists of the time were obsessed by the infallibility of *laissez faire,* and that they were quite incapable of believing that any measure of protection could, under any circumstances, be beneficial. There is no doubt that the Irish manufacturers themselves regretted the abolition of the protecting duties. One witness, who had formerly been engaged in the calico-printing trade in Dublin, gave the following evidence before the Irish Poor Law Commission in 1835: "The calico-printing trade increased very substantially in Dublin during the first twenty years of the present century. The number of hands employed increased from one to five hundred. But each step in the removal of the protecting duties was very soon felt. Soon after the first reduction took place the manufacturers began sensibly to feel the injury, from having such a glut of English goods brought into the market, and were obliged to discharge a great number of their men. The second reduction made bad worse, and from that time to the present the trade gradually sank to decay."

In 1840 the trade was becoming more and more localized in the neighbourhood of Belfast and was almost altogether confined to county Antrim. In the early part of the century it extended itself through several parts of Ireland, and was carried on to a considerable extent in Dublin, Drogheda, Collon, Stratford, Mountmellick, Limerick, and Bandon. Belfast however was not only the place in which it was first introduced, but the centre to which capital and skill were attracted; and, as the trade increased at Randalstown, Belfast, and Coleraine, it declined in the other parts of the Kingdom where it had been introduced. The position of Belfast, as regards the great cotton-weaving districts of Scotland, in the north of England, and its increasing trade as the Liverpool of Ireland, held out advantages for the importation of the material, and the introduction of the improved machinery which was being applied to its manufacture in England and Scotland, possessed in no other part of Ireland. The small manufacturers scattered over the other parts of the kingdom were precluded from contending with the concentrated capital and skill which the local advantages of Belfast attracted towards it: consequently the trade, while it rapidly extended in the County Antrim, and portions of the County Down, adjacent to Belfast, generally declined, and for all practical purposes might be almost considered as extinct in the other parts of Ireland, although large manufactories had been established at Clonmel, Portlaw, and Limerick, and carried on with considerable success. At Bangor, Greyabbey, and Newtownards the cotton trade was carried on to a very considerable extent.

Even in Belfast the manufacture was rapidly disappearing, owing to the cheaper production in England and Scotland. With the exception of half-a-dozen mills engaged in the spinning of yarn, the cotton trade was practically confined to the production of fabrics by hand-loom labour. A serious fall in the rate of wages had taken place. A man who in 1790 could earn four shillings a day, could earn only a shilling a day in 1840. Of the 10,000 weavers employed in the neighbourhood of Belfast, 5,000 were employed by the Scotch manufacturers, and 600 by a Carlisle firm. These British houses employed Irish labour, simply because of its excessive cheapness, and Ireland could derive but little advantage from an industry carried on on this system. The decay of the manufacture was attributed to the lack of Irish capital to introduce improved processes, and by the too great uniformity of the goods produced. The cotton-printing trade had entirely disappeared.

The only places outside Ulster where the manufacture was carried on were Limerick, Clonmel, and Portlaw. In Limerick the trade had been extinct from 1820 to 1835, but in the latter year a Scotchman, named Buchanan, had been attracted to the town because, in his own words, " the population was poorer and more numerous than in any other town in Ireland." He brought over weavers from Paisley and Glasgow, and apprenticed many Limerick boys to the trade. In 1840 Mr. Buchanan's factory gave employment to 200 boys as weavers, and drawboys at the wretched wages of from two shillings to four shillings a week, and to twenty boys and girls as winders at a slightly higher wage. Originally it had been intended to make plain goods, on the ground that the cheapness of the labour would enable these goods to compete with similar goods made by power-looms in England and Scotland; but this expectation was falsified, and the only goods manufactured in 1840 were shawls, for which, however, it was difficult to find a market, as the people in the adjoining countries had grown accustomed to Scotch shawls.

The manufacture of plain cotton by hand-loom labour was carried on at Clonmel. In 1840, 176 hand-looms were engaged, the girls who worked them receiving about three shillings a week. The continued existence of this factory was only rendered possible by the fact that it was able to obtain yarn cheap from Portlaw, where the same proprietor conducted a large power-loom manufacture.

In the early part of the century Bandon had been a flourishing centre of the cotton industry. In 1825 2,000 cotton weavers had been employed in the town, at wages of about twelve shillings a week. The trade prospered up to about 1829, when it ceased to be able to compete with the English goods which were sent into the market. "The power-looms swept away the trade in three or four years." Mr. Otway gives the following terrible account of the condition of the Bandon weavers in 1840: "Nothing can equal the distress of the poor cotton weavers of Bandon. I never witnessed greater misery than in their cabins and mode of living; few, however, remained at the trade, except old or infirm persons, and a few young boys, whom the poor parents try to keep at the loom in order to preserve them from absolute destitution. I did not meet what I could call an able-bodied individual on a cotton loom. The moment the young weavers are able to turn to anything else, they quit the loom, and, if they cannot obtain labouring work, quit this part of the country, and look for employment elsewhere, or enlist. Bandon is one of the best depots for obtaining recruits in the south of Ireland."

The twenty years following the Union was the first period since the beginning of the eighteenth century in which the export of Irish *linen* did not increase. The temporary standstill which the linen industry experienced at this time was largely caused by the prosperity of the cotton manufacture, which attracted many weavers away from the linen on account of the much higher rate of wages which it offered. In 1809 and 1813 the exports fell away very considerably owing to conditions caused by the war. Although the quantity of Irish linen manufactured in this period did not appreciably increase, its quality improved, and the exports after 1800 consisted principally of fine linen.

Wakefield gives the following account of the linen industry in 1812. It is interesting to observe how widespread the manufacture was at that date compared with what it was a few years later: "Narrow linens are made in Donegal, Londonderry, Tyrone, and Antrim, in the neighbourhood of Belfast, Lisburn, and Lurgan cambric lawns and diapers are made, in Armagh coarser yard-wide cloths. Cavan produces a thin cloth for the most part ⅞ wide. Fermanagh and Sligo manufacture ⅞; and in the countries are found most of the bleach greens, which finish for sale those linens which are sent in a bleached state to England. A strong kind of ⅞ dowlas, some ⅛ and ⅝ sheetings made in Louth, Meath, and Dublin are sold in the market of Drogheda, and find their way in an unfinished state into the country markets of England, a coarse cloth very like Scotch Osnaburgs is manufactured in Kerry and Cork, and is used in the same manner as Osnaburgs for negro clothing. In the neighbourhood of Dingle a strong fabric is made called *box and trap*. The manufacture of sail cloth is confined to Cork."

As we have seen, the cotton manufacture began to decline about 1830, and this decline caused many weavers to turn to the linen manufacture. A revival of the industry consequently took place, which was aided on by the introduction at about the same date of the wet spinning process. This revival, however, was confined to Ulster, and no corresponding movement took place in the languishing manufacture of the south and west.

The spirit of *laissez faire* made itself felt in the linen industry in 1826, when the Government informed the Linen Board that the grant for the encouragement of the manufacture would be reduced in 1827 to £10,000; and in the following year the grant was altogether discontinued. In 1828 an important Act was passed, with the full approval of those engaged in the linen industry, dissolving the Linen Board, and vesting its property in the Crown. A very comprehensive control of the industry was, however, still maintained, and many regulations were re-enacted. County committees were established to control the brown sealmasters who were continued in office. These provisions for regulating the trade were re-enacted from time to time, but were finally allowed to lapse in 1842.

In 1840 the linen industry had become definitely localized in north-east Ulster, a phenomenon the causes of which we shall discuss at a later page. Belfast was a great centre of spinning, but not of weaving; it was the great emporium of the linen trade of Ireland, and the centre to which the linens, not only of the Ulster counties, but also of the linen-weaving districts of the west of Ireland, were sent for sale. Large quantities of linen were directly exported from Belfast to foreign countries; but the greater quantity was sent through Liverpool. Belfast was also the great linen yarn market of Ireland, where the principal manufacturers obtained their supply of either Scotch, English, Irish, or foreign yarn. The amount of the value of the hand-spun yarn sold per annum in Belfast was stated to be £100,000. Extensive mills, to the number of fifteen in the town, besides four others in the neighbourhood for the spinning of linen yarn, were established; and the yarn they produced was equal in quality to any made in the United Kingdom. One-fourth of the flax for their consumption was imported.

There were at the same time about six or eight hundred hand-loom weavers in Belfast. Hand-loom weaving factories had recently been introduced and were rapidly extending. The weavers in these factories were principally employed on canvas, sacking, damasks and coarse linens. The weavers greatly objected to the introduction of the factory system, as it put them too much in the power of their employers, and prevented them from the free exercise of their labour. The advantages, however, of the factories were so great and so obvious as to overrule all objections.

The linen industry was widely spread throughout the counties of Down and Armagh. The old custom of a linen weaver owning a patch of land and supplementing his earnings by means of farming was gradually dying out. This change, while undoubtedly beneficial to the agriculture of the northern counties, operated to make the weavers absolutely dependent on the manufacture for a living. In some remote parts of County Down the old system still prevailed, and where it did, the wages paid for weaving were very low.

Banbridge was the principal seat of the manufacture in the north of Ireland. It was in this neighbourhood that some of the first manufacturers who invested large capital in the linen trade established themselves, and here the great experiment of placing the linen trade of Ireland on a new foundation was tried. The great subdivision of the capital invested in the linen trade, the want of a proper division of labour being applied to it, and a direct market for the disposal of the produce year by year, rendered it more apparent that it could be no longer continued on its former system. On the repeal of the protecting duties, and the introduction of mill-spun yarn into England and Scotland, it became evident to the capitalists in the north of Ireland either that the linen trade should be placed on a new foundation, and conducted on the improved principles that were being applied to its manufacture in the other portions of the United Kingdom, or that Ireland should lose its linen trade altogether. The result was that the linen manufacture was placed on a new foundation, and men of extensive capital and skill became engaged in it.

In the neighbourhood of Lurgan, Tandragee, and Dungannon much linen continued to be manufactured on the old system, which however was gradually being superseded from the necessities of the case. The independent weavers found a difficulty in obtaining sufficiently small quantities of machine-spun yarn, and hand-spun yarn was no longer of any use.

Outside the counties of Down and Armagh the linen manufacture was rapidly disappearing. "From Dungannon," says Mr. Otway, "I proceeded to Strabane, at one period the great yarn market of the counties of Tyrone, Donegal, parts of Armagh, Derry, and Down, and the place to which the yarn produced in Fermanagh, Cavan, Monaghan, Leitrim, and Sligo was sent for sale. The trade is almost at an end, the introduction of mill-spun yarn having limited the market and the profit of hand-spun yarn."

In the County Donegal weaving was principally confined to those who wove for the immediate wants of the farmers, or for sale in the county fairs and markets. These weavers had full employment only from the first of May to the first of January in each year, with the omission of a month at harvest time, and for the remainder of the year only had half-time employment. The continuance of the old system of double occupations was thus rendered a necessity.

In County Sligo Mr. Otway found " merely the traces of a linen manufacture ; the linen hall of considerable extent was hired out as a general warehouse, and hardly a single web presented for sale. On what were the linen market days a few spinners still hawk hand-spun linen through the streets, but both the quality and the quantity of the yarn offered for sale is utterly insignificant." Mr. Otway considered what he saw in Sligo to be " a decided proof of the correctness of the statement that the linen trade in Ireland could not be preserved on the old system on which it was conducted. The old system," he proceeds, "died a natural death, and the new system was not introduced. The small portion of linen now made up for the use of the peasantry continues to exist solely from the want of ready money amongst the people."

The linen manufacture in Drogheda had experienced a particularly rapid decay, and the condition of the weavers in 1840 was terrible. About 1,900 persons were still able to obtain occasional employment, but the wages which they could earn were deplorably low. The lowest wages paid in the trade were in Drogheda, where the weavers were in a most distressed condition. The average wage earned during periods of employment, which were very intermittent, was about four shillings a week, and the average number of persons dependent on each weaver was six. The manner in which this wretched income was supplemented so as to provide subsistence for the weaver and his family is thus described by Mr. Otway : " The poor weavers supply themselves with the lowest species of vegetable food, and provide a place of shelter, if shelter it can be called, to live and weave in, so as to keep off actual destitution. The poor weaver collects manure, and is then able to plant potatoes, enough to last from three to four months, on ground obtained gratis from some neighbouring farmer, who is glad to give the potato crop for the sake of the corn crop, which the manure will enable him to obtain the next year. Now there is wanting about half an acre more to supply potatoes for the remainder of the year, and this ground is taken in conacre, from some farmer who has manured or rich grass land to let which will give a good crop of potatoes. For this he agrees to pay about £4. Thus provision being made for the main food of his family, it devolves on his industry to procure clothing, and to pay the rent of his conacre ground and cabin. The industry of his wife and children, by the fattening of a pig, or in some cases the sale of eggs and poultry, or by begging through the district, enable the family to procure a little milk or ' kitchen ' as it is called. How the weavers who live in the centre of the towns manage it is impossible to imagine. The cabins that the weavers live and work in are fearful specimens of what habit will enable a human being to endure ; it is impossible that any good description of work could be woven in such sinks of filth ; but the very dirt is their principal means of support. That a corporate town, entrusted with public property for the benefit of its inhabitants, should have permitted such a state of things is to me inexplicable ; I am persuaded that no part of Europe, or I might add, of the world, presents such a spectacle of dwellings for human beings as part of Drogheda."

The decline of the linen manufacture in Drogheda was caused by the English and Scotch competition in the manufacture of coarse linens. The fine linen manufacturers were not affected by this competition, but they migrated one by one to Down, Antrim, and Derry, as they found that the manufacture could be more economically and profitably conducted in those counties. The hand-loom weavers, however, did not migrate at the same time, and were left without employment. The introduction of mill-spun yarn administered the final blow to the industry in Drogheda.

The condition of the industry in other parts of the south and west was the same as in Sligo and Drogheda. It had generally disappeared, except for the making up of some coarse linen for the peasantry, except in a few isolated districts where the almost total absence of any employment for the great mass of the people had rendered hand-loom labour so cheap as to enable some webs of coarse cloth to be occasionally made up. The quality of the linen produced was deteriorating ; looms were generally in disrepair ; and in some districts the hand was used instead of a fly shuttle. It was Mr. Otway's opinion that it was " only a matter of time until the linen industry was totally extinct.''

The industry had also almost disappeared in Dublin, where it was restricted within very narrow limits, and confined to one or two manufacturers, of whom Crosthwaites were the principal, with the exception of one or two coarse canvas and sail-cloth manufacturers. The rate of wages in Dublin was from eight to twelve shillings a week, and the working day from twelve to fifteen hours.

Thus in the early years of the nineteenth century the linen manufacture disappeared from three-fourths of Ireland, but succeeded in developing in the north. The extent of the manufacture, however, even in Ulster, was really not very great when compared with the English and Scotch manufactures, and it derived its importance in the industrial life of the country from the absence of other industries. This is well put in Kane's *Industrial Resources of Ireland:*

"The extent of this manufacture stands in such relief from the usual absence of all manufacturing industry in Ireland that we frequently attach to it a degree of importance and an idea of absolute magnitude that it does not really possess. In reality Ireland is almost as much behind in this as in every other branch of industry. The town of Dundee alone is considered to manufacture as much linen as all Ireland, and the relation which the manufacture of flax bears in the three kingdoms is exactly shown in the following figures, which are extracted from the report of the factory inspector for 1839, since which period no sensible alteration has taken place.

"In England there were 169 mills worked by 4,260 horse-power and employing 16,573 persons.

"In Scotland there were 183 mills worked by 4,845 horse-power and employing 17,897 persons.

"In Ireland there were 40 mills worked by 1,980 horse-power and employing 9,017 persons."

The *silk* industry was completely suspended during the rebellion of 1798, and it did not ever really recover its former prosperity. Undoubtedly the Union, by causing the emigration of a great number of the Irish nobility and gentry to London, seriously diminished the demand for silk goods in Dublin. Still more serious was the competition now beginning to be offered by the English industry, which was rapidly extending in Macclesfield and Manchester. Before 1821 the Irish industry was to some extent protected against British goods by the ten per cent protecting duty, retained by the Act of Union; but in spite of the duty the British manufacturers were by their increased command of capital able to undersell the Dublin manufacturers even in the Irish market.

In 1821 the protecting duties on importation from England expired; and a few years later foreign silks were allowed to be imported into the United Kingdom. The opening up of steam communication between Great Britain and Ireland still further increased the competition; and in the panic of 1825 the Irish market was inundated with goods at a price less than the cost of the raw material. "From that date," says Mr. Otway, "the loss of the silk trade was rendered inevitable."

"In 1825," we read in the evidence before the Poor Law Commission of 1833, "the removal of the protecting duties took place, and the regulations of the Dublin Society were done away with. At that time the low price of labour in England enabled the English manufacturers to sell their goods at a much less price than they could get them prepared here. . . . Our trade rapidly declined."

From the date of the removal of the protecting duties the silk trade gradually sunk out of existence; it dwindled into a mere court luxury, dependent on the capricious smile of viceregal patronage, or the uncertain support of charity balls. The number of silk weavers remaining in Dublin in 1840 was about 400, and employment was very irregular. The rate of wages per week was higher than in Manchester, but the irregularity of employment was so great that the English weavers earned much more in the year.

It has been very generally stated that the downfall of the silk industry in Ireland was hastened by combinations. Otway said: "It cannot be doubted that illegal and dangerous combinations among the workmen have operated most injuriously on the trade, driving many of the most extensive manufacturers out of it, and deterring others from directing their capital and intelligence towards it. If not checked the system will speedily drive away the remaining portion of the trade."

It is impossible, however, to help feeling that the combinations were rather the effect than the cause of the decay of the trade. In 1824 the weavers voluntarily consented to a reduction of fifteen per cent of their wages in order to enable their employers to meet the growing competition, and it is probable that what we said about the combinations in the woollen industry is also true of the silk industry, namely, that the efforts of the workmen were not directed so much to improve their position as to ward off its disimprovement.

Even the *provision* trade, which had continued to flourish through many vicissitudes, declined in the early nineteenth century. In 1812 Wakefield found it very prosperous. It was, however, principally confined to Cork, from which beef, pork, and butter were exported in large quantities. About 10,000 oxen and 8,000 cows were slaughtered annually in Cork. "The expedition," says Wakefield, "with which the animals are slaughtered, the meat cut up and salted, and afterwards packed, is astonishing. As the people employed in the business have acquired great experience by habit, every part of it is conducted with the utmost regularity and despatch." However, even at that date the export of live cattle was increasing; the blockading system rendered necessary a large supply of live cattle for the ships of war; and the supply of this demand was confined to England. Irish cattle dealers were in this way tempted to transport their cattle to England, where they would have an opportunity of being purchased for the navy. The manufacture of bacon and hams continued to be carried on on an extensive scale at Limerick, Clonmel, and Waterford.

At this time the Irish provision trade was in a very advantageous position with regard to its supply of salt, which on importation to Great Britain paid a duty of £40 a ton, whereas the corresponding duty in Ireland was only £4. At the termination of the war, however, the duties were equalized, and thenceforth the advantage in obtaining supplies of salt was in favour of Great Britain, owing to the almost total absence of salt works in Ireland.

In 1827 the high duties which had excluded foreign provisions from Newfoundland were repealed. The Irish provision merchant thus lost his preference in the Newfoundland market, and the trade immediately decayed. A few years later the differential import duties in the West Indies were also repealed, and Irish provisions were soon undersold by American. Peel's free trade policy threw the British market open to foreigners, and the Irish provision trade suffered another severe blow.

The industry was further discouraged by the increase of steam navigation in the Irish Channel, and the consequent ease with which live cattle could be transported to Great Britain. The rapid growth of the latter trade may be judged from the following figures:

	Cattle exported from Ireland to Great Britain.
Three years ending March 25, 1800	14,105
Three years ending January 5, 1826	57,395
Year ending January 5, 1847	186,483
Year ending January 5, 1850	201,811

In view of the fall-off in the dead meat trade which took place as the result of these causes, the curing of bacon came to be the principal branch of the provision industry. But even this experienced a severe decline as a result of the famine, and the consequent disappearance by emigration of the cottiers and small farmers who were the principal breeders of pigs.

After this long recitation of decaying manufactures, it is pleasant to be able to record that the *brewing* industry did not decline, but on the contrary expanded during the period under review. Wakefield found flourishing breweries in existence in Cork, Fermoy, Limerick, Waterford, Roscrea, Belfast, Navan, Armagh, Donoughmore, and Dungannon. The export of Irish beer gradually increased, and the Irish brewers supplied practically the whole Irish market as well. The industry received a severe period of depression during Father Mathew's temperance movement, but afterwards regained its prosperity. "It is only necessary to say with respect to the Irish brewing trade," writes John Francis Maguire in his valuable *Guide to the Cork Exhibition* of 1852, "that it is recovering from the serious injury which it sustained by the temperance movement, and the renewed depression in the year of the famine; that its home consumption is very little interfered with by English importation; and that the Irish brewers on the contrary do a large and increasing business in England and with foreign countries."

The *distilling* industry also increased. Wakefield found that the progress of legal distilling was greatly impeded by the competition of illicit stills, which were very numerous, and the total number of licensed distilleries in 1810 only amounted to nine. In 1821 the quantity of spirits produced in Ireland on which duty was paid was 3,627,552 gallons; in 1825 it had increased to 8,835,027 gallons; and in 1836 to 11,894,169 gallons. Father Mathew's temperance movement seriously affected the distilling trade for a few years; the output fell off from 12,000,000 gallons in 1839 to 5,000,000 in 1843. During this period of depression two-thirds of the distilleries were crushed out of existence; but the trade afterwards revived.

Another industry which did not decline in the first half of the nineteenth century was *shipbuilding*. The introduction of steam navigation in 1824 greatly increased the volume of the cross-channel trade, and the demand for new ships was to a large extent met by Irish shipbuilders. In 1824 an important shipyard was established at Belfast, but its proper development was impeded by absence of a port authority with power to improve the navigation of the Lagan. Between 1824 and 1854 about fifty wooden vessels, chiefly brigs and schooners of from one hundred to three hundred tons, were built in Belfast; two wooden steamers and a few iron-built steamers were also launched. Shipbuilding was also carried on in Cork on a fairly extensive scale. After 1845 several steamships were built; and one large shipyard in 1850 gave employment to 370 workers. Shipbuilding was also carried on in Drogheda and Waterford, but it had been driven out of Dublin early in the century as a result of incessant labour disputes. Thus before 1850 Belfast had not attained its position of supremacy in the shipbuilding industry which it occupies to-day; and the industry was more generally diffused throughout the country.

With the brewing, distilling, and shipbuilding industries we have completed the list of the manufactures that increased during the fifty years following the Union; and the few minor industries which it remains for us to mention experienced a decline.

The *glass* industry, which had been so prosperous at the time of the Union, practically disappeared before 1850. The following extract from John Francis Maguire's *Guide to Cork Exhibition*, 1852, gives a good account of the decline of this important branch of industry: "Irish glass is rather a thing of the past than of the present; a matter of regret rather than a source of enjoyment. The people of this country are now almost wholly dependent for their supply of glass on the English makers. This was not so at one time, and that not very remote; for there were several glass-houses in Ireland, manufacturing an article of superior quality, and some of them even making largely for exportation to foreign countries. In 1825 there were no less than eleven flint glass factories all in full work. A little less than twenty years since there were about seven full-worked factories in Ireland—two in Dublin, two in Cork, one in Waterford, one in Newry, and one in Belfast. At present there are but three glass-houses in all Ireland—two flint and one bottle."

The manufacture of pottery had never been successfully established in Ireland, but any remnants that remained in the beginning of the nineteenth century soon disappeared, owing to the impossibility of carrying on the manufacture at a distance from the coalfields. In Wakefield's time nothing but coarse earthenware and tiles were made in a few places.

The *leather* industry should have prospered more than it did in view of the large quantities of cattle slain for the provision trade. "In Ireland," we read in Wakefield, "notwithstanding the number of cattle slaughtered every year, it does not appear that tanning is carried to such an extent as might be expected." This was attributable in part to the difficulty of procuring bark owing to the destruction of the Irish woods; "but the chief obstacle to the good preparation of leather in Ireland is the levying of the duty on the pit in place of on the skin as in England; this makes it the interest of the tanner to run as many hides through the same liquor as possible, whereby the skins are imperfectly prepared, the process being but half performed." The *Guide to the Cork Exhibition* of 1852 recites that the leather industry had been on the decline for many years: "An idea of the falling off may be formed from the fact that in Cork alone there were at one time forty tanneries at full work; while there are not now more than sixteen. The orders given by the leather sellers of the country towns to the manufacturers of Dublin, Cork, Limerick, Waterford, and Clonmel bear but a miserable proportion to those which they were in the habit of giving in former times—indeed they are scarcely one-fourth of what they were." This decline was attributable to the importation of large quantities of cheap English leather, and to the growing export of live cattle.

It would be impossible in the space at our disposal to enumerate all the minor industries that experienced a decline in the fifty years following the Union. Such an enumeration is to be found in one of the appendices to the Report of the Poor Law Commissioners in 1836, which contains much information on the subject. The majority of the manufacturers who gave evidence before the Commission attributed the falling off in their business to the withdrawal of the protecting duties. A carpet maker stated that he was the only one of his trade left in Dublin; that the English manufacturers, by reason of the long credits they could obtain, were able to undersell the Irish even in the Irish market; and that the removal of the protecting duties had been followed by a great fall in wages. The bookbinders gave evidence to the effect that their trade had been very flourishing after the Union, but that at a later date the public departments had begun to give their contracts to English firms. After the withdrawal of the duties, books were imported from England already bound, and much unemployment resulted in Ireland, in spite of voluntary reductions of wages. The glovers stated that: "The withdrawal of the protecting duties gave a severe blow to this trade. The English poured in their goods and undersold us." The hatters gave similar evidence: "When the protecting duties were withdrawn the trade here received a fatal blow, for we were immediately inundated with an importation of English hats." A prominent iron founder said: "Owing to the protecting duties having been withdrawn, and the credit given by English manufacturers, our trade has been gradually sinking. In 1825 our markets were constantly overstocked with every article from England." A striking instance was that of the cutlers: "The withdrawal of the protecting duties seriously affected the trade, not in the quantity of work, but in the prices of our goods, and the men's wages were reduced from fifty shillings to twelve shillings a week. The men behaved very well, and took the reduced wages, as they had no alternative but to starve. There was a glut of goods from Sheffield which caused many of the workers to emigrate."

Another group of manufacturers, principally those engaged in the making of articles of luxury, gave evidence that they had been injuriously affected by the greatly increased absenteeism caused by the Union. Amongst these were the basket makers, the braziers, and the coachbuilders.

The net result of the first fifty years of the nineteenth century was that Ireland had abandoned all pretence of being an industrial country, and relied for its support on agriculture to an almost greater degree than it had done at any previous period, even than in the middle of the eighteenth century. The extent of the industrial decay which followed the Union can only be fully appreciated when it is compared with the progress which Great Britain made at the same time, or that which Ireland had made under Grattan's Parliament. Next after the decline of industry in the country as a whole, perhaps the most striking features of the period is the definite tendency shown by the manufactures which survived to become localized in the north-east corner of Ulster.

We have already in our survey of the different manufactures seen the causes which tended to produce industrial decline, and it is only necessary here to summarize them and to endeavour to assign to them their true relative importance. It must be obvious to everybody that the principal factor which operated to assist or to impede the development of manufactures until the middle of the nineteenth century was the manipulation of protective duties and bounties. For a period of 150 years England had consistently and logically protected her own industries so long as they needed help of this kind, and it was only when they had been placed on such a footing of strength as to be practically incapable of suffering from outside competition that the policy of artificial stimulation was relaxed. During the period, however, in which English industries were thus built up, Irish industries had been depressed and discouraged by the commercial restraints. After 1780 Ireland for the first time for nearly a century had an opportunity of reviving her decayed manufacturing life, and, as we have seen, ample use was made of this opportunity by Grattan's Parliament. The means adopted were those which had proved so successful in Great Britain in the past, and there is every reason to believe that, had Ireland had sufficient time fully to develop her commercial policy, she would have benefited from it equally. That time, however, she was not destined to have. When it is remembered that in 1780 Irish industries had sunk to their lowest ebb, and that Grattan's Parliament had to base its policy of reconstruction on practically no existing foundations, it will be immediately realized that it was impossible to do very much in so short a period as twenty years. Obviously Ireland in 1800 must have been industrially in a much weaker position than Great Britain at the same date; the former had enjoyed twenty years of Colbertism, and was just at the point where all the encouragement of those years would go for naught unless more encouragement were to follow; the latter had reached the stage where the full fruits of the Colbertian policy of the past could only be fully realized by a change to another system.

The equality therefore of duties on the trade between Great Britain and Ireland was but nominal, and represented no real equality. So long as there was any reason to suppose that an equalization of duties would be productive of such equality of competition, British trading interests had vigorously and successfully resisted any advance in that direction; but all doubt on this matter had disappeared before the end of the eighteenth century; and the Act of Union did not arouse any alarm amongst British manufacturers. The old fears of Irish competition in the British market had given place to the hope of British supremacy in the Irish market.

As we have seen, the Irish import duties were removed, partly at the Union and partly twenty years later. In the interval a duty of ten per cent on practically all goods (except cotton) was retained. It is unnecessary to discuss whether more injury was done to the Irish manufactures by the first or the second change of the tariff; but it is possible that too much importance has been sometimes attached to the effects of the latter. It is probable that the real injury was done at the Union, as the advantage which the British manufacturer possessed by reason of the introduction of improved methods and the division of labour almost certainly outweighed that which the Irish manufacturer possessed by reason of the duty. The English market was certainly equally closed to Irish produce before and after the abolition of the ten per cent duty. The matter may perhaps be correctly summarized by saying that the reduction of the duties inaugurated a period of arrested development, and that their abolition inaugurated a period of decline.

This view of the important effects produced on Irish industry by the changes in the tariff is that of the most competent modern students of the subject. Dubois, in his *Contemporary Ireland,* says: "England, which under the protection of her customs barriers had, during a century, been winning her way to industrial superiority, was now under a commercial freedom to witness the full expansion of her prosperity. But for Ireland free trade, on the contrary, merely accentuated the progress of decay. She was not in a position to struggle against foreign competition. During the nineteenth century Ireland suffered as much from free trade and from the doctrines of the Manchester school as she had suffered throughout the eighteenth century from mercantilism and commercial restraints." Miss Murray expresses the same opinion in *The Commercial Relations between England and Ireland:* "The industrial history of Ireland during the nineteenth century shows how impossible it was for Irish manufacturers to compete with British, once the two countries were commercially united, and all customs' duties on articles going from one country to the other gradually abolished. It also shows the advisability of a country possessed of little industrial development fostering and protecting its infant manufactures until they are firmly established, in order to prevent them being crushed out of existence by the competition of other countries. But union with Great Britain necessitated the application of the new free trade principles to Ireland just at the time when Irish industries should have met with encouragement and protection." "While industrial protection was in vogue in England," says Dr. Cunningham, "little stimulus was given to real improvement of any kind in Ireland, but her whole system suffered a severe blow when protection was withdrawn. . . . The regime of ill-assorted companionship has been almost as baneful as the period of jealous repression and Protestant ascendancy."

The end of the eighteenth and the beginning of the nineteenth centuries comprised what is known as the period of the Industrial Revolution. Improved methods of manufacture were introduced; the principle of the division of labour was carried into practice to a degree never before known; and new forms of power were applied. It may be taken as certain that a country in which these changes took place at an early date would be in a position to undersell any other country in which their introduction was delayed, unless the latter were favoured with some advantage of situation, or protected by import duties and bounties. Ireland enjoyed neither of these advantages. She was but a few miles from Great Britain, and her markets were fully exposed to British competition. It was all important, therefore, that she should not lag behind Great Britain in adopting the improved methods of production which were effecting such a revolution in British production.

As a matter of fact, these improvements were not introduced in Ireland until long after they had become well established in Great Britain, and this delay was the fundamental cause of Ireland's inability to compete with the latter in a free market. We shall discuss the causes of this late introduction of improved processes in Ireland directly; let us first prove the fact.

In 1812 Wakefield stated that "Little progress can be made in Ireland in manufactures without a proper division of labour, which is still a great deficiency in that country. In every large undertaking recourse is always had to some director or overseer, who is able to distribute the different parts of the work to those best qualified for the execution of them, and to assign to each labourer his fit proportion by which means the whole is completed in a shorter time and in a much better manner. But in Ireland the minute divisions of land, and the manner in which the inhabitants are scattered over the country, render it necessary for labour of various kinds to be performed by the same individual. In arts carried on in this manner improvement is impossible. Except in the cotton branches, and in the curing of provisions, this pernicious system is everywhere observed." The same writer elsewhere informs us that "the spinning of linen yarn by machinery was not practiced in Ireland till within the last few years."

The Select Committee on the Irish Linen Trade in 1825 found that the division of labour had been carried to a very much greater degree in England than in Ireland; and the Poor Law Commission of 1833-6 heard much evidence to the same effect. The report of the latter commission states that, "if trade is encouraged, it is to be hoped that they may expect that division of labour which exists in England." A hosiery manufacturer stated before the commission that the business in Ireland was done entirely by the chamber masters, and not in factories, as in England ; an iron founder, that the English were enabled to undersell him because they had adopted the division of labour; and a paper manufacturer, that there was in Ireland no machinery equal to that employed in Great Britain.

Otway's Report on the hand-loom weavers discloses a similar state of affairs four years later. He states that the "system of spinning flax by machinery was not introduced into Ireland until a considerable period after its introduction into England and Scotland"; and that there were no power-looms employed on woollen weaving even as late as 1840. It would be tedious to produce any more evidence of a fact so well established as that the industrial revolution came later in Ireland than in England.

It may possibly be said that, if Irish manufacturers did not avail themselves of the improved methods of production which were being introduced elsewhere, they only had themselves to blame for their country's industrial decline. This suggestion might have some weight if Ireland had been a country normally circumstanced economically, but, as a matter of fact, it was not so in any respect. The introduction of the improvements which came in at the time of the industrial revolution was impossible without capital, and it was lack of capital that prevented Irish manufacturers from adopting them.

The acquisition of capital by the Irish manufacturers at the beginning of the nineteenth century was almost impossible for two reasons. One was the land system, which prevented the accumulation of any substantial capital in Ireland ; the other was the unsatisfactory banking system, which impeded the circulation of whatever capital was accumulated in spite of the land laws. The essential evil of the land system was that no part of the surplus produce of the land was enjoyed by the occupying tenant. The combined result of the evils of middlemen, short leases, the absence of tenant right, and the pressure of a large population upon the soil, was that the actual cultivators did not obtain more than a mere subsistence as a result of their labour. The whole surplus was drained off as rent. This evil was aggravated a hundredfold by the prevalence of absenteeism, by reason of which the surplus product of the land was not only lost to the occupying tenant, but to the country as a whole. Under such a system as this the accumulation of capital in Ireland was an impossibility. "At the present day," wrote Mr. Otway in 1840, "the principal impediments to the growth of manufacturing industry arise from the want of a comfortable middle class, and the condition of the agricultural population. From the nature of his tenure, and the want of an improved system of cultivation, the occupying tenant in most places receives a very disproportionate share either of the profits of his industry or the produce which the soil is capable of producing. There is, and until the relations between landlord and tenant are altered there can be, no accumulation of savings in the south of Ireland from agricultural industry, and hence there can be no spontaneous growth of manufactures from small capitals." This opinion of the effect of the land system on industry was shared by Sir Robert Kane: "In the south the wretched remnants of feudal barbarism paralysed all tendency to improve. The lord was above industry; the slave below it; and hence, although the circumstances of a fertile soil, easy access to markets, and abundance of motor power, were in themselves favourable, the blessings which nature presented were left unutilized."

Absenteeism had always been a curse in Ireland since the beginning of the eighteenth century, but it greatly increased after the Union, and the economic drain which it caused became more serious than ever. The resources of Ireland were weakened and wasted in another important respect after the Union, namely, by the increased taxation, which resulted in the transmission to England of huge sums yearly for which no equivalent was received.

The land system, therefore, and the overtaxation prevented the accumulation of any considerable capital in Ireland. Even such small capital as was accumulated was, however, not capable of being employed so as to produce its maximum benefit, on account of the defective banking facilities that the country afforded. Witness after witness before the Poor Law Commission of 1833–6 stated that they were undersold in the Irish market by English manufacturers on account of the long credit that the latter could obtain. "If the Scotch system of banking," wrote John Francis Maguire in 1852, "which has tended so much to the development of the resources of that by no means naturally favoured country, had been extended to Ireland some years since, there can be little doubt that she would now be in a different position from what she is ; and that the chimneys of busy factories would meet the eye in many directions where there is felt but the silence of utter desolation. The difference between the two systems, the Scotch and the Irish, may be described, the one as liberal, the other as discouraging. Under the one the enterprising manufacturer of good character is allowed credit in proportion to the extent of his business, his capital and his requirements ; while under the other, he is not allowed to overdraw his account, even to the smallest amount. The enterprising manufacturer is fostered and encouraged in Scotland, as the best possible supporter of the banks ; but, from whatever reason, it is otherwise in Ireland."

To the general spectacle of industrial decay which Ireland presented in 1850 there was one fortunate exception, namely, the north-east corner of Ulster. The progress of this one locality at a time when every other part of the country was declining is a remarkable phenomenon which calls for some explanation. In the eighteenth century Ulster stood in by no means the same position of industrial pre-eminence compared with the rest of Ireland which it occupies to-day. The linen industry, it is true, was more in evidence in the northern province than elsewhere, but it was by no means non-existent in the south and west ; and, with the exception of the newly established cotton industry, Ulster did not possess under Grattan's Parliament any undue share of the manufacturing wealth of the country. But in 1850 a great change had taken place ; the linen industry was practically extinct in the three southern provinces, while it continued to flourish in Ulster ; and by far the largest part of the cotton manufacture was carried on in the same district.

Ulster, indeed, owes a far larger share of her industrial development to the cotton than to the linen manufacture. The cotton industry was the one industry that made substantial advances during the years following the Union, principally because it alone continued to be encouraged by protective duties. It was at the same time the only industry in Ireland, except the provision trade in Cork, in which the improved processes were introduced at an early date. It was the localization of this industry in Belfast, where it had been established in 1778, that conferred on Ulster the position of industrial importance which that province was destined to maintain for the remainder of the nineteenth century. Wakefield perceived this clearly in 1810: "The superior and more opulent condition of a great many of the inhabitants of Ulster has been ascribed to the linen manufacture; but this opinion is entirely void of foundation. In what district do the people appear to be most comfortable in their circumstances? Forming a circle at a distance of twenty miles from Belfast, it will be seen that commerce and the cotton manufacture have diffused prosperity to that favoured spot."

The cotton industry, with its up-to-date methods of production, and its application of the division of Labour, was a most valuable object lesson to those engaged in the linen manufacture in the same neighbourhood. It was also accompanied by the advantage that it afforded an alternative or additional source of employment to the families of the linen manufacturers. It must be remembered that each industry established in a locality helps all the others, just as the decay of one injures all the others. Industrial progress and retrogression are cumulative in their effects. In this connection the proximity of Belfast to the industrial districts of Scotland must not be overlooked.

Ultimately, however, the linen industry supplanted the cotton in Ulster and regained its former pre-eminence. Although improved processes were not introduced into the linen manufacture at as early a date as in England, they were nevertheless adopted earlier than in other parts of Ireland. This applied particularly to the spinning branch of the manufacture. About 1830 hand-spun yarn definitely gave place to that spun by power, and one reason that the linen industry in the south and west declined so rapidly was that it was found impossible by the weavers to obtain cheap supplies of power-spun yarn. In Ulster, however, spinning by power was introduced, thus ensuring a regular supply of yarn for the weavers.

The improved methods appeared much later in the weaving branch of the manufacture than in the spinning, and handloom weaving, especially of the finer fabrics which were chiefly manufactured in Ulster, was retained until the middle of the century. The principal improvements that were introduced into this branch of the industry were the cessation of the custom by which weavers supplemented their earnings by farming small portions of land, and the congregation of the weavers into factories. The former was generally admitted to be accompanied by great advantages both to weaving and to agriculture, as it converted the former man of all trades into a skilled full-time workman; and the institution of the factory system also made for increased output and greater efficiency. In 1840, out of nine hundred weavers employed in Belfast, seven hundred were employed in factories; and it was said that the introduction of this improvement was encouraged by the widespread embezzlement of yarn which took place when the work was performed in the weavers' own homes. Mr. Muggeride stated in the report on the Hand-Loom Weavers that "the extent of embezzlement, and the traffic in stolen materials existing in Belfast, was stated to be much greater than in any other town visited either in England or Ireland."

Apart from these two changes, the process of weaving did not undergo any very great change in the early part of the nineteenth century, and it is doubtful if, had it done so, the Ulster linen industry would have survived. Such was the opinion expressed by Mr. Pim in his book on the *Condition of Ireland*, written in 1848: "The manufacture of flax has more slowly adapted itself to the factory system than either that of cotton or wool. Linen is still woven by hand, and flax continues to be spun by hand till recently; the machinery for spinning flax by power not having been invented until long after that for spinning cotton had been brought to nearly its present state of perfection. The factory system had, therefore, time to develop itself in England, as applied to the manufacture of cotton, woollens, and worsted goods, before the linen trade was exposed to its influence. When the contest between the spinning wheel and the flax mill commenced the linen trade of Ulster might have experienced the same fate as the cotton and woollen trades of the south of Ireland, but that it was still necessary to weave by hand."

The reason that Ulster was enabled to progress during the period in which the remainder of Ireland declined was that the improved process of manufacture was adopted in the northern province. Was this in any way due to a superior industrial character in Ulster? We have seen that the failure of the southern manufacturers to introduce improvements was due to their inability to amass capital owing to the land system ; and it is equally the fact that the reason Ulster was enabled to progress was because capital could be accumulated owing to an essential difference in the land system in the north. The Ulster custom, which was observed throughout the northern counties, did away with the worst evils which characterized the land system in the south, by encouraging tenants to improve by ensuring that they would enjoy such capital as they succeeded in accumulating. Absenteeism, moreover, was not so common among the northern landlords. The existence of the Ulster custom was undoubtedly the reason why the industries of Ulster weathered the storm, which swept away those of the south and west. " It may be asked," says Mr. Otway, " why the manufactures of the north did not share the fate of those of the south ; but the question is easily solved by a glance at the state of the population in the province of Ulster. . . . The landlords and tenants in the manufacturing districts belonged to one class ; they did not regard each other as hereditary enemies ; . . . there was no legacy of oppression on one side or of revenge on the other. The Ulster tenant felt and feels he has a property in his favour, something on the earth he could call his own ; that the fruits of his industry would be allowed to accumulate into a small capital ; and, in point of fact, such an accumulation did take place, for the greater part of the capital in the linen manufactures of Ulster was derived from the savings of agricultural industry, and hence arose the numerous class who were at the same time a farmer, a weaver, and a linen dealer." The progress of the north was therefore as intimately connected with the land system as was the decline of the south, and was equally unconnected with the character of the manufacturers. Indeed, the only way in which the special character of the Ulster people influenced the industrial development of the province was by hastening on the introduction of the factory system on account of their dishonesty in dealing with the yarn in their own homes.

The remarkable growth of Belfast, as apart from other parts of Ulster, is generally attributed to the financial difficulties of the Chichester family at the end of the eighteenth century. So great was their need of money that they granted away their Belfast estates in perpetuity in consideration of heavy fines, and thus the lands got into the hands of the commercial class, and away from the baneful influence of landlordism. " To these perpetuity leases," says Mr. Godkin in *The Land War in Ireland,* " we must undoubtedly ascribe the existence of a middle class, and the accumulation of capital for manufacture and commerce."

The suggestion has been frequently made that industry was ruined in Ireland in the early nineteenth century by reason of the action of the workmen in demanding unreasonable wages, and enforcing their demand by combinations and strikes. This raises a very important question, which, unfortunately, it is impossible to discuss at proper length in the space at our disposal. It would be idle to deny that strikes were very frequent in Ireland in the early nineteenth century, as their frequency and bitterness appears on every page of the industrial history of the time. It may also be admitted that these strikes were productive of much injury to the manufactures in which they occurred. This fact is proved absolutely beyond yea or nay by the evidence before the Poor Law Commission of 1833–6, the Select Committee on Combinations of Workmen, 1838, the Commission on the Hand-Loom Weavers, and many other contemporary inquiries. The most famous instance of an Irish industry being absolutely ruined by strikes is that of the Dublin shipbuilding, but many other smaller industries indubitably suffered in the same way.

Merely to state that strikes occurred and inflicted damage on certain manufactures is not in any sense a condemnation of the workmen who took part in them. On the contrary, they were often most necessary, and, even when most disastrous, were often unavoidable, if the ordinary rights of the workmen were not to be completely overridden. It must be remembered that the anti-combination laws in Ireland were even more severe than those in Great Britain, and that, except in certain highly skilled trades, the Irish labourer was paid a much lower wage than a corresponding worker in England. "The rate of wages," says Otway, " for all classes of operatives, with the exception of a few trades, which are limited by the expense or the difficulty of learning them, or which require a continuous industry and attention rarely to be met with, are much lower than in any other part of the United Kingdom."

Strangely enough, while in general wages were lower in

Ireland than in England, they were considerably higher in the more skilled branches. This was constantly stated to be owing to the unreasonable combinations in the latter, but Sir Robert Kane was strongly of opinion that this was not so: "A bricklayer in London gets 22s. per week, and his labourer 14s.; a bricklayer in Dublin gets 25s. a week, and his labourer 9s. These proportions are often said to be caused by combinations and threats against employers. It is not so; the fact being that men who know how to set bricks are proportionately more abundant in London, and men who do not know how to do it are more abundant with us. This directly produces both the power of combining and the difference of wages." In view of these differences it was impossible to say whether the cost of labour in any one process was higher in England or Ireland, as this depended on the proportion between the number of skilled and unskilled workers employed.

The strikes which took place seem to have been more often defensive than offensive, and so far as this was so, the blame for them must be laid on the masters and not on the men. The evidence given before the Poor Law Commission of 1833-6 shows that this was admitted by many of the masters themselves. For instance a pin manufacturer stated that: "The masters here are not sufficiently attentive to their workmen; they do not show them so much kindness as in England"; a coachbuilder: "One great cause of combinations is the want of conciliatory manners of the masters towards the men. Many of them will seize every opportunity which may offer of taking advantage and grinding the men down to the lowest rate of wages"; an ironmaster: "If the masters were not so anxious for their own benefit, and showed a little more feeling towards the men, there would seldom be any disturbance"; another ironmaster: "If the men were better treated they would always come to upon reasonable terms"; and a third ironmaster: "I consider that combinations are more owing to the behaviour of the masters than of the men, who are much oppressed by many of them and get nothing like sufficient wages." An impartial witness gave evidence before the Select Committee of 1824, that in the Dublin shipbuilding industry the masters relied altogether on the combination laws, and would not "bend at all to the men." These extracts, which are taken at random from the huge mass of evidence on the subject which was received by the commissioners, show conclusively that the blame for the strikes must not be put altogether on the men. Mr. Hall, a solicitor and independent witness, stated before the Committee of 1824 that he could "more easily reason with the men than with the masters; they are generally more intelligent and reasonable, and seldom refuse to come to a reasonable adjustment." The fact is that the strikes were, as we have said above in dealing with the woollen industry, less often actuated by the desire to better the workers' condition than by the fear of their position being lowered by reason of the decay of industry which was taking place. The decline of an industry caused combinations and strikes, which themselves operated only to hasten the decline —a vicious circle.

The most unpleasant feature of the strikes was that they were frequently directed from England, and it is impossible to resist the conclusion that the Irish workman was on some occasions used as a tool by English interests to injure Irish industries. A hatter stated to the Poor Law Commissioners that his operatives were promised financial support from London to the extent of £3,000 in the event of a strike; a tailor, that his men took their strike orders from London; and a cabinet-maker that "in trade disputes delegates came over from trade unions in Liverpool and Glasgow, and so wrought on the tradesmen of Dublin as to excite in them some very high ideas of the utility of some plans they had in agitation, and their determination to carry them into effect." Daniel O'Connell stated in Parliament that many Irish trade disputes were fomented in Manchester; and there was a famous instance in which a body of English glass manufacturers paid the glass workers in Cork strike pay for two years. These instances of English interference in Irish industrial affairs contain a serious lesson for us at the present day, as they show that the English allies of Irish workmen are not always purely disinterested in their activity in promoting trade disputes in Ireland.

On the whole, however, we may say that the prevalence of strikes in Ireland was not so much a cause as a consequence of the industrial decay of the country. The whole subject is admirably summed up in the following passage from Sir Robert Kane's *Industrial Resources of Ireland:* "No person really conversant with the progress of industry in the two countries would assent that there is more combination here than in Great Britain. The history of industry in England for the last century presents a series of the most violent attacks, riots, and combinations, murders of the most amiable employers, destruction of machinery and mills ; in fact, such an array of illegal interference with the first rights of property and labour as would, if judiciously worked up by an active editor, supply materials for a history of Great Britain that has not yet been written. But these events are lost sight of by the public in the vast extent of British industry. The ringleaders are punished ; the general mass return to work. . . .

" In this country, however, cases of combinations derive an extrinsic importance from causes quite independent of their true nature. Our industry is so limited in amount that a disagreement, which in England would never be heard of except by those immediately concerned, becomes matter of universal comment, and unfortunately the organs of public opinion are too often hurried by the eagerness of political feeling into speaking of a quarrel between a master and a few men as if it were a general outbreak of the working against the employing class.

" Thus a dispute recently took place in Cork, so unimportant that in a week it was forgotten in Cork. But it was not forgotten elsewhere. The journals took it up, and concealing that the whole affair was a dispute about wages, they seized on the question of English and Irish, and poured out on the poor Cork workmen and their unhappy country column after column of vulgar abuse and contumely. It was inferred that Ireland was in a state of barbarism ; that if mills were erected they would be burnt ; if masters gave employment their throats would be cut ; that the means of earning wholesome food and healthful habitations, of dressing comfortably, of educating their children to useful trades, were looked upon in Ireland as objects sedulously to be avoided ; and that the native Irish had an indomitable and natural taste for rags and dirt, for sloth and hunger, for violence and murder."

Another factor which has frequently been suggested as an important cause of the decline of Irish industries is the distance of Ireland from the nearest coal supply. Sir Robert Kane, however, pointed out that the importance of this was greatly exaggerated ; that the percentage of the cost of production incurred for coal was too small materially to alter the selling price of any commodity manufactured in Ireland; and that the necessity of importing coal was of less detriment to the industries concerned than the necessity of importing various raw materials, such as flax, cotton, wool, and salt.

The industrial decay of Ireland was caused, therefore, by no failing of character either on the part of the employer or of the workmen, but was the result of the fiscal changes which were introduced at the Union, and completed twenty years later. The abolition of the duties was vital, owing to the inability of the Irish manufacturers to compete with their English rivals; and this inability was itself the result of the impossibility of capital being accumulated in Ireland under the land system as it then was. Ultimately, of course, the cause of the decay was political, inasmuch as the application of the unsuitable tariffs was only rendered possible by the fact that the Irish Parliament had ceased to exist. The progress of Ulster, on the other hand, was the result of the differences in the land system which prevailed in that province, and was in no way due to the Act of Union. In other words, the Union was responsible for the industrial decline of the south, but was in no way responsible for the industrial advance of the north. Indeed, it is very probable that north-east Ulster would have been even more prosperous to-day had the Union never been passed.

The effect of the industrial decline which we have outlined was to cause great unemployment, and to throw the whole population on the soil for support. As we have seen, however, the soil, however naturally rich and abundant, was by the operation of the land laws unable to afford to those who cultivated it more than a bare subsistence. Here we have a vicious circle. The land system was largely responsible for the industrial decay, which itself operated to aggravate the evils of the land system. The situation created by the action and interaction of these two causes grew annually more unbearable until a crisis was reached in the dreadful years of the famine. The drastic solution which this terrible event provided for Irish economic problems was ably helped on by Sir Robert Peel, who, by repealing the corn laws, finally deprived Ireland of the last means left to her by which she could hope to maintain her large population. "The Irish farmer and stock-raiser," says Dr. Cunningham, "had had an advantage since the Union over the agriculturists of other regions in supplying the English market; but under the system of free trade this advantage was lost. The complete abandonment of the corn laws proved a very serious blow to the more energetic elements of the population."

Such was the effect of the ruin of Irish industries on Ireland. It also had effects on Great Britain, but of a very different kind. Many of the operatives thrown out of employment in Ireland migrated to Great Britain in search of work, and their presence proved an important benefit to England at a period when she was in urgent need of cheap labour. "When the rapid and vast increase of the large towns is considered," wrote Sir George Cornewall Lewis in his Report on the Irish Poor in Great Britain, in 1836, "it may be difficult to estimate the precise amount of advantage derived from the command of labour which the unemployed population of Ireland afforded to them, or how many opportunities of successful development might have been lost without this facility of obtaining at any moment a large supply of new hands." Thus once again Ireland's poverty was England's wealth.

There is no need to point any conclusions from the contents of the foregoing pages. It is abundantly clear that, from the industrial and commercial points of view, the first fifty years of the Union system of government was, to put it mildly, not a success. The country, which at the date of the Act of Union was remarkable for its industrial progress and commercial expansion, was in a condition of industrial ruin and commercial paralysis at the golden jubilee of that auspicious event.

[illegible] over the Union over the manufacturers of other regions in supplying the English market is not under the period of free trade the advantage was lost. The complete [illegible] of the Connaught group is a very [illegible] to the more energetic elements of the population.

Such was the effect of the Union. The industries of Ireland in their turn had effects in Great Britain, but of a very different kind. Many of the operatives thrown out of employment in Ireland migrated to Great Britain in search of work, and their presence proved an important factor in England at a period when the manufacturing demand of cheap labour [illegible]. When the masters and workmen of the large towns is considered [illegible] Irish towns is [illegible] on the Irish Famine [illegible] in 1846. It may [illegible] the [illegible] advantage [illegible] the [illegible] of which the [illegible] population [illegible] [illegible] how many [illegible] [illegible] might have [illegible] the facility of obtaining [illegible] [illegible] of [illegible] of new [illegible]. Thus once again [illegible] was England's [illegible].

There is [illegible] only one from the [illegible] of the [illegible] it is abundantly clear that, from the [illegible] and Connaught points of view the last fifty years of the [illegible] of [illegible] and [illegible] It is [illegible] not a [illegible]. The century which [illegible] the date of the Act of Union was remarkable for its industrial progress and [illegible] [illegible], yet in a condition of industrial [illegible] [illegible] [illegible] of the golden [illegible] of that [illegible] event.

NOTE ON HISTORICAL INTRODUCTION

IN the foregoing pages Dr. O'Brien has surveyed the main currents which acted and re-acted upon the industrial economy of Ireland from the seventeenth up to the middle of the nineteenth century. In the following pages the present writer attempts to trace the later history of the subject—from about the year 1850 to our own day. Were this work confined to the latter period alone, the reader would find it impossible, without reference to other works, to arrive at reliable conclusions as to the causes responsible for the present-day dearth of Irish trade and industry. But, by studying the subject over an extended period, such as is covered by this work as a whole, these causes are made manifest. During the greater part of the nineteenth century no systematic records were kept of Irish trade and industry. Consequently, to provide full historical *data* relating to this period is an impossibility. In some cases it has been found possible to collect, from various sources, a fair amount of *data*, but in other cases very little reliable information is available upon which to found a definite historical narrative.

E. J. R.

MODERN IRISH TRADE AND INDUSTRY

MODERN IRISH TRADE AND INDUSTRY

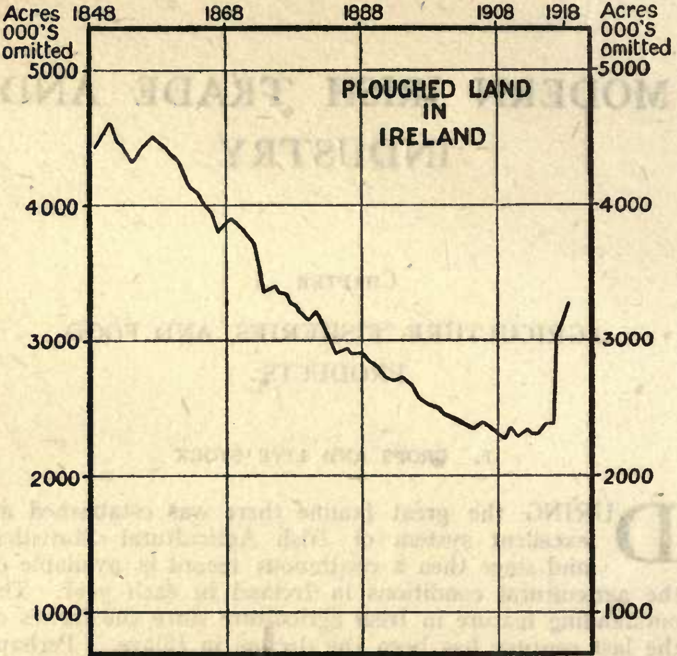
CHAPTER I

AGRICULTURE, FISHERIES, AND FOOD PRODUCTS

I. CROPS AND LIVE STOCK

DURING the great famine there was established an excellent system of Irish Agricultural Statistics, and since then a continuous record is available of the agricultural conditions in Ireland in each year. The outstanding feature in Irish agriculture since the forties of the last century has been the decline in tillage. Perhaps the quickest method of getting a clear idea of the decrease is to consider the shrinkage in the area under Corn Crops, Green Crops, and Flax, *i.e.*, the area ploughed each year. The following diagram shows at a glance that this area decreased practically continuously from 1849 to 1916; the substantial recovery in 1917 and 1918 was due to the necessities of the war. Much of this improvement was, however, lost in 1919. The area of ploughed land decreased from 4,402,377 acres in 1849 to 2,384,761 acres in 1916; it increased to 3,220,992 acres in 1918, but fell to 2,786,546 acres in 1919.

29.8 *per cent* of the arable land (*i.e.*, land under crops and grass, excluding rough mountain grazing) was ploughed in 1849. This percentage fell to 16.2 in 1915. In that year Ireland had a much lower percentage of arable land ploughed than any country in Europe. In an address delivered at Dundalk on September 13, 1915, Sir T. W. Russell, Vice-



President of the Department of Agriculture and Technical Instruction, stated :—

> In comparison with Ireland's 16 *per cent* of ploughed land, Germany has 65 *per cent* to her credit, Hungary 59 *per cent*, and Austria 52 *per cent*. Our Allies are also far ahead of us in this respect. European Russia ploughs 78 *per cent* of her arable land, Serbia 63 *per cent*, Belgium 59 *per cent*, Italy 58 *per cent*, and France 55 *per cent*. Of the neutral countries Roumania ploughs 79 *per cent*, Bulgaria 71 *per cent*, Luxemburg 64 *per cent*, Portugal 55 *per cent*, and Denmark 54 *per cent*. This latter figure for Denmark may seem much too low to those of you who have visited or studied that country, but we must bear in mind it is

only the land ploughed each year that I am taking into account. If I included the seed hay with the ploughed land the percentage for Denmark would be no less than 91 *per cent.*

As the percentage ploughed in Ireland in 1849 was only 29.8 *per cent* it is seen that even at that period Irish agriculturists applied much less labour to the land than was the rule on the Continent before the outbreak of war.

A rough measure of the loss of food production involved in the low percentage ploughed in Ireland is given in the following statement, which appeared in an advertisement issued by the Department of Agriculture and Technical Instruction in February, 1917 :—

> An acre of merely average land will produce in Oats 1 ton, in Potatoes 8 tons. An acre of the primest fattening land will not produce in Beef (live weight, counting hides, bones and all) more than 5 cwt.
>
> An acre of Oats will feed for a week 100 people. An acre of Potatoes 220 people. An acre of Beef 8 people.
>
> To grow Oats takes 5 months. To grow Potatoes 4 to 6 months. To grow Beef takes 2 years.

The decline in tillage and the comparatively small food production on the grass lands, are fairly well realized by the Irish public. There is also a general idea that our country is more fertile than most lands. The *Statistical Year Book* of the International Institute of Agriculture shows that Ireland has an extraordinarily high rate of produce *per* acre as compared with other countries. The following is a comparison of the average yields *per* statute acre in Italy, France, and Ireland, for the five years 1912–16 inclusive :—

	ITALY. Cwts.	FRANCE. Cwts.	IRELAND. Cwts.
Wheat	8.1	10.6	19.9
Oats	7.4	10.3	17.6
Barley	6.7	11.0	19.0
Rye	8.6	8.3	14.8
Potatoes	43.5	69.1	107.7

An acre of ploughed land produced nearly twice as much in Ireland as in France, and more than twice as much as in Italy. The following additional facts extracted from the same publication show the extraordinarily favourable position of Ireland as regards *average* yields of crops *per* acre in the five years, 1912–16 :—

Rye.	Out of 23 countries listed, Ireland came second.
Oats.	Out of 31 countries listed, Ireland came second.
Barley.	Out of 34 countries listed, Ireland came third.
Wheat.	Out of 38 countries listed, Ireland came third.
Flax.	Out of 15 countries listed, Ireland came sixth.
Potatoes.	Out of 24 countries listed, Ireland came seventh

As a result of Land Purchase Acts, which have enabled Irish farmers to become the owners of the land they work, and in consequence of the propagation, by the Department of Agriculture, of knowledge as regards the scientific treatment of crops and live stock, as well as the operation of other factors, there has been a steady improvement in Irish agriculture during the last twenty years. In that period there has been an all-round increase of about 25 *per cent* in the rate of yield per acre of the tillage crops. The following table shows the increases in the averages for two periods of five years :—

CROPS.	AVERAGE RATE OF YIELD PER STATUTE ACRE.		INCREASE.	
	1895–99.	1913–17.	Actual.	Per cent.
	Cwt.	Cwt.	Cwt.	
Wheat	17.0	20.1	3.1	18.2
Oats	15.0	17.7	2.7	18.0
Barley	17.4	19.1	1.7	9.8
	Tons	Tons	Tons	
Potatoes	3.9	5.7	1.8	46.2
Turnips	14.9	17.3	2.4	16.1
Mangels	15.7	20.3	4.6	29.3
	Stones	Stones	Stones	
Flax	26.6	27.6	1.0	3.8

It is presumably in this direction that the most rapid and permanent progress can be made in the near future. It is a matter of more and better agricultural education.

A few figures with regard to the principal crops may be of interest:

WHEAT:—The area under Wheat in 1847 was 743,871 acres—the largest extent recorded. This decreased to 504,248 acres in 1851, to 401,243 acres in 1861, to 244,451 acres in 1871, to 153,794 acres in 1881, to 80,870 acres in 1891, and continued small to 1914, when the area was 36,913 acres. It had increased to 157,326 acres in 1918, but fell to 69,663 acres in 1919.

In the Report on the *Trade in Imports and Exports at Irish Ports*, in the year 1915 (Cd. 8498, 1917), it is stated that the quantity of wheat and wheat flour consumed in Ireland in that year would represent the normal produce of 730,000 acres of wheat in Ireland.

OATS:—In 1852 the area under Oats in Ireland was 2,283,449 acres; this was the largest extent recorded for that crop. There was a gradual decrease in the area sown which reached its lowest point in 1914, when it stood at 1,028,758 acres. It had increased to 1,579,537 acres in 1918, but decreased to 1,442,458 acres in 1919.

Most of the oats produced in Ireland is consumed by the horses and the food animals on Irish farms. Of the 955,000 tons produced in 1912, 607,400 tons were thus consumed on the farms; 90,850 tons were used for seeding the 1913 crop. This left 256,750 tons over for feeding horses in Irish towns, for the manufacture of oatmeal in Ireland, and for export. Oats and Potatoes are the only two Irish crops which are exported in large quantities. The exports of Oats, which amounted to 44,695 tons in 1904 (the first year for which figures are available), increased to 79,764 tons in 1907, and remained at about this level to 1914. During and after the war larger shipments were made; the largest export recorded was 162,055 tons in 1919.

BARLEY AND BERE:—In 1849 the area under Barley and Bere was 351,509 acres. This was the largest area ever placed under these crops. It gradually decreased to 152,520 acres in 1866. After that year the area increased to 254,845 acres in 1879. A decrease then set in and the extent was reduced to 167,407 acres in 1884. From that date on to 1914 the area remained fairly constant; in 1915 it fell to 141,586 acres; in 1918 it had risen to 184,712 acres; and in 1919 to 186,625 acres. Barley was the best paying of the 1919 crops, and Irish farmers showed their good judgment in selecting it as the only crop to show an increased area that year.

Most of the Irish barley crop is sold for malting. Thus out of the 155,546 tons produced in 1912 there were 130,650 tons sold off the farms. Of the remainder 12,600 tons were used for seeding the 1913 crop.

POTATOES:—In 1849 the area under Potatoes was 718,608 acres. The extent gradually increased to a *maximum* in 1859 when it reached 1,200,247 acres. There was then a gradual and almost continuous decline down to the year 1909, when the area reached the *minimum* 579,799 acres. The area in 1916 was 586,308 acres; in 1917, 709,263 acres; in 1918, 701,847 acres. The area fell to 588,802 acres in 1919.

Large quantities of potatoes are exported from Ireland each year, but still the shipments amount to only a comparatively small fraction of the large total produced in Ireland. Potatoes are grown specially for export in only seven counties (Antrim, Armagh, Donegal, Down, Londonderry, Tyrone, and Louth), all of which are in the north. The total export, which amounted to 108,578 tons in 1904, had increased to 187,922 tons in 1914; during and after the war much larger quantities were shipped, amounting to 343,099 tons in 1918 and to 301,271 tons in 1919.

TURNIPS:—The largest area ever recorded for Turnips was 399,377 acres for the year 1852. The decline in the area under this crop was very much less than in any of the four already mentioned. The change was gradual, and the *minimum* 262,814 acres was reached in 1916. The area increased to 294,795 acres in 1918, but fell to 273,460 acres in 1919.

MANGELS:—This is the only crop the area of which has shown a steady tendency to increase. The area in 1849 was 18,758 acres. The area was much the same in 1867, but had increased to 48,948 acres in 1872. In 1897 it was 54,649 acres; in 1907 it had increased to 72,134 acres. It reached its *maximum* of 97,663 acres in 1918 but decreased to 74,839 acres in 1919.

FLAX:—The area under Flax in Ireland shows more variations than the area under any other crop. The extent in 1849 was 60,314 acres. It increased to 174,579 acres in 1853, but fell to 97,075 acres in 1855. The area increased fairly steadily to 301,693 acres in 1864. This was the largest extent ever recorded. It had fallen to 101,174 acres in 1875, after which it was enlarged to 157,540 acres in 1880. It decreased to 89,225 acres in 1884, to increase again to 130,284 acres in 1887. It then fell to 67,487 acres in 1893, but stood at 101,081 acres in 1894. It had gone down to 34,469 acres in 1898. In 1915 the area was 53,143 acres. It rose to 91,454 acres in 1916, to 101,705 acres in 1917, and to 143,355 acres in 1918, but fell to 95,610 acres in 1919.

In the five years previous to the war Ireland on an average produced 10,581 tons of flax, imported 38,057 tons, and exported 3,259 tons. Accordingly, the annual average consumption of flax was 45,379 tons. In the same five years the average yield *per* statute acre in Ireland was thirty-two stones. Taking this as the normal yield, Ireland should have had about 227,000 acres under flax in order to produce sufficient for her pre-war requirements.

TIMBER:—The area under Woods and Plantations in 1853 was 305,221 acres, in 1880 it had risen to 339,858 acres, which was the largest extent recorded for any year. After this there was a gradual decrease to 289,944 acres in 1918.

* * * * *

The food animals and the horses on Irish farms consume most of the crops produced in Ireland and comparatively small quantities are sold for consumption off the farms. On the other hand only a comparatively small part of the output of Irish live stock and live stock products is consumed on Irish farms. 79.2 per cent of the Irish farmers' income is directly derived from live stock and live stock products, and only 20.8 *per cent* directly from crops. The tables on pp. 64–65 show the estimated quantities and values of Irish crops, live stock and live stock products sold or consumed by the farmers and their families in Ireland in the year ended May 31, 1913—the latest year for which the figures are available :—

CROPS.

	Quantity.		Value.
			£
Wheat ..	Tons	39,500	306,000
Oats.. ..	,,	257,000	1,715,000
Barley ..	,,	130,650	1,126,000
Beans ..	,,	380	3,000
Peas ..	,,	85	600
Potatoes ..	,,	1,495,000	6,102,000
Carrots ..	,,	12,000	18,000
Parsnips ..	,,	7,000	22,000
Other Green Crops ..	,,	—	66,000
Flax.. ..	,,	12,956	855,000
Tow(undressed)	,,	12,956	39,000
Hay ..	,,	217,500	743,000
Straw ..	,,	15,000	27,000
Grass Seed ..	,,	39,300	385,000
Fruit ..	,,	—	320,000
Timber ..	,,	245,000	123,000

The Irish agricultural returns for 1917 were grouped according to size, and the returns for holdings of each size were sub-grouped in accordance with the percentage of arable land ploughed. The summaries for these sub-groups showed that—

(1) For a group of holdings of a particular size, the higher the percentage of tillage the more numerous were the milch cows and young cattle, of sheep, of pigs, of poultry, but the smaller the number of beef cattle *per* 100 acres of arable land.

(2) For a group of holdings each with the same percentage of arable land tilled, the smaller the holding the more numerous were the milch cows and young cattle, of pigs, and of poultry,

but the less numerous were the beef cattle and sheep *per* 100 acres of arable land.

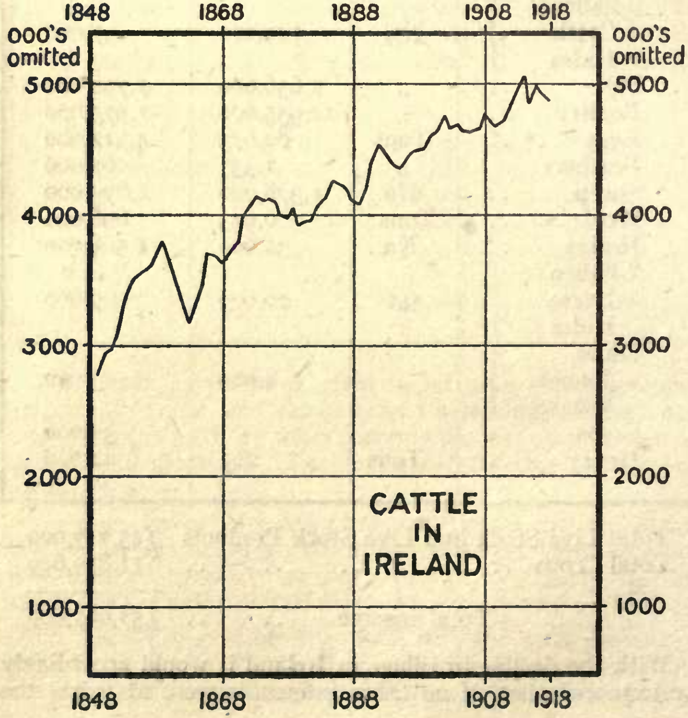
LIVE STOCK AND LIVE STOCK PRODUCTS.

	Quantity.		Value.
			£
Cattle ..	No.	1,096,000	13,854,000
Butter ..	Tons.	88,200	9,201,000
Whole Milk..	Gals.	92,000,000	2,492,000
Butter and Separated Milk	,,	22,000,000	687,000
"Fallen" Cattle Hides	No.	129,000	97,000
Pigs ..	,,	1,656,000	7,790,000
Poultry ..	,,	12,955,000	1,575,000
Eggs ..	Tons	82,673	4,312,000
Feathers ..	,,	1,333	67,000
Sheep ..	No.	1,378,000	2,875,000
Wool ..	Tons	6,933	696,000
Horses ..	No.	32,000	1,508,000
"Fallen Horse Hides	,,	10,000	7,000
Mules, Jennets & Asses	,,	4,000	13,000
Goats ..	—	—	32,000
Honey ..	Tons	207	11,000

Total Live Stock and Live Stock Products	£45,217,000
Total Crops	11,850,600
Total income	£57,067,600

With the decline in tillage in Ireland it would accordingly be expected that, if no other influences were at work, the number of food animals would also have declined. There appears to be a general impression that the decreased tillage was counterbalanced by an increase in the number of live stock. While the changes will be shown in more detail later on, it may be of interest to state here that sheep have greatly declined during the last thirty years, that pigs have shown a distinct tendency to decrease during the last twenty-five years, and that a curious change has taken place in the cattle herds—the number of milch cows and the number of cattle bred have decreased, although the total number of cattle kept has increased.

The following diagram shows that the number of cattle in Ireland increased almost continuously from 1849 to the present date:—



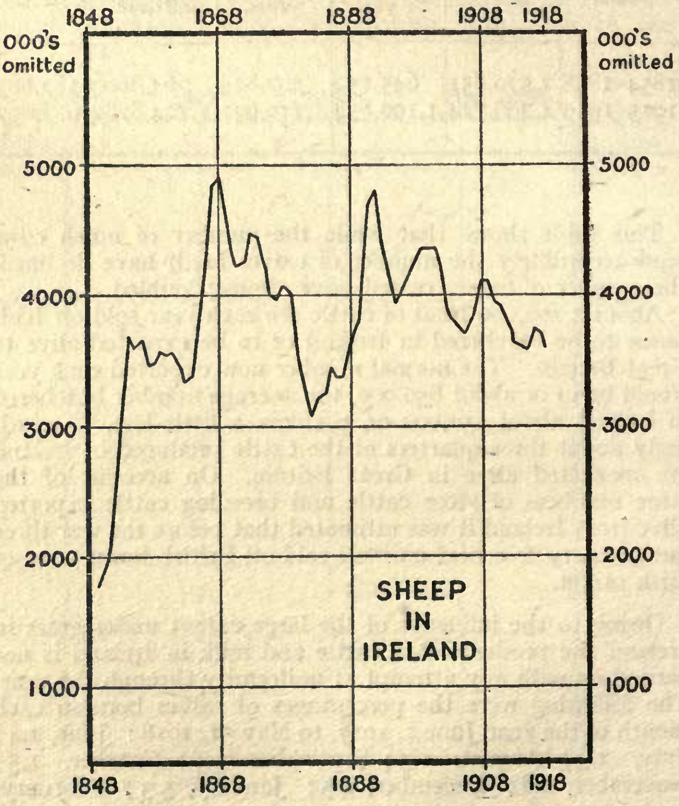
The foregoing diagram conceals the fact that the number of milch cows in Ireland, the number of calves born each year, the production of milk and of butter, have decreased. The following table shows the curious change which has taken place in our cattle herds since 1854, the first year in which the milch cows were separately enumerated :—

Average for five years.	Milch Cows.	OTHER CATTLE.			Total.
		Under 1 year	1 to 2 years.	2 years and over.	
1854–1858	1,579,851	645,152	597,814	764,866	3,587,683
1915–1919	1,496,724	1,190,854	1,110,641	1,124,878	4,923,097

This table shows that while the number of milch cows (and accordingly the number of calves bred) have declined, the number of calves reared have almost doubled.

About 1,100,000 head of cattle are each year sold off Irish farms to be butchered in Ireland or to be exported alive to Great Britain. The normal number now exported each year would be in or about 850,000, the average number butchered in Ireland about 250,000 or, perhaps, a little less. Accordingly about three-quarters of the cattle produced in Ireland are marketed alive in Great Britain. On account of the large numbers of store cattle and breeding cattle exported alive from Ireland it was estimated that before the war three out of every five beef animals sold off British farms were of Irish origin.

Owing to the influence of the large extent under grass in Ireland the production of cattle and milk in Ireland is not carried on with any attempt at uniformity through the year. The following were the percentages of calves born in each month of the year June 1, 1917, to May 31, 1918 : June, 1.4 ; July, 1.3 ; August, 1.5 ; September 1.4 ; October, 1.5 ; November, 1.8 ; December, 2.5 ; January, 5.3 ; February, 10.0; March, 25.1; April, 29.0; May, 19.2; total, 100.0. 73.3 *per cent.* of the calves were born in the three months March, April, and May. Although this inequality has not its full effect on the exports of butter, still it is found that, taking for instance the year 1915, 56.4 per cent. of the butter exported was shipped in the four months June to September. Similarly, the grass is availed of for beef production; the numbers of fat cattle exported being at a maximum in October and November and at a minimum in May and June.



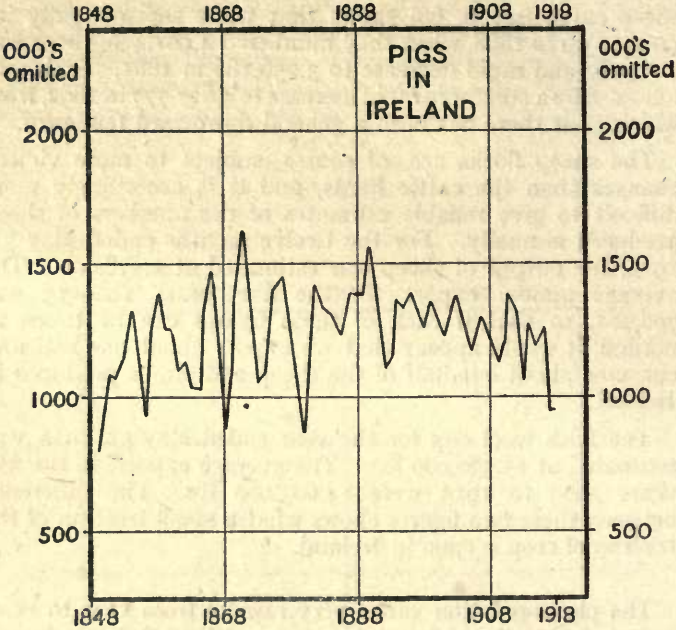
Unlike the cattle curve which appears on p. 66, and which indicates a constant upward tendency, the corresponding sheep curve (see p. 68) shows that while sheep rapidly increased up to 1868, when they numbered 4,901,496, there was a steady and rapid decrease to 3,256,186 in 1881. This was followed by a still more rapid increase to 4,827,777 in 1892, from which year there has been a general downward tendency.

The sheep flocks are, of course, subject to more violent changes than the cattle herds, and it is accordingly more difficult to give reliable estimates of the numbers of sheep produced annually. For the twelve months ended May 31, 1913, the output of sheep was estimated at 1,378,000. The average annual export for the five years 1909–13 was 708,281, so that, if each of these figures can be taken as normal, it would appear that we export about one-half and consume about one-half of the sheep and lambs produced in Ireland.

The Irish wool clip for the year ended May 31, 1912, was estimated at 15,530,000 lbs. The average exports in the five years 1909 to 1913 were 14,603,000 lbs. The difference between these two figures shows what a small fraction of the Irish wool crop is spun in Ireland.

The pig population varies very rapidly from year to year. An exceptionally bad potato crop is followed by a drastic reduction in the number of pigs. For instance, the *average* yield *per* acre of potatoes fell from 6.2 tons in 1915 to 4.2 tons in 1916, and as a result the pigs decreased from 1,290,289 in 1916 to 947,472 in 1917. A reduced pig population can, however, be rapidly restored as there are two crops of pigs each year.

The following diagram shows how rapidly the number of pigs in Ireland vary from year to year :—



Although there are violent changes from year to year, still it can be seen from the above diagram that the numbers of pigs tended to increase up to the early nineties, and since then have tended to decrease.

While 73.3 per cent. of the calves are born in March, April, and May, and 94.8 per cent. of the lambs in February, March, and April, the births of bonhams are fairly evenly distributed throughout the year. Still pork production is to a considerable extent seasonal; the pigs are fattened off after the harvest, the numbers finished reaching a maximum in November or December, and a minimum in July or August.

The trend of the Irish export trade in live stock is shown in the following statement :—

Average for three years.	EXPORTS FROM IRELAND.		
	Cattle.	Sheep.	Pigs.
1847–9	195,938	273,641	95,082
1857–9	321,441	437,501	335,480
1867–9	466,952	795,386	285,121
1877–9	677,344	649,048	495,212
1887–9	692,604	599,946	499,814
1897–9	773,882	836,642	657,548
1907–9	847,023	750,986	398,837
1917–9	791,410	628,376	188,651

The decline in the exports of live pigs since the nineties must be considered in connexion with the progress of the Irish bacon-curing industry. The abnormally low average for 1917–19 was due to the falling off in the pig population, which resulted from the failure of the potato crop in 1916 and the difficulty of obtaining maize since that year.

According to the Report on the Agricultural Statistics of Ireland for the year 1916, the following were the numbers of cattle, sheep, and pigs *per* 1,000 acres of land in different countries :—

Country.	Year.	Cattle.	Sheep.	Pigs.
Ireland	1916	244	185	63
England	1916	167	434	62
Scotland	1916	66	370	8
Wales	1916	171	817	40
Belgium	1913	254	—	194
Denmark	1916	242	27	209
Holland	1913	261	105	168
France	1916	94*	83*	33*
Germany	1915	152	38	129
Austria	1910	124	33	87
Hungary	1913	75	81	84
Italy	1914	94	195	38
Switzerland	1916	163	17	55

* Excluding animals on territory occupied by the enemy. It will be seen from the above table that even in regard to cattle Ireland had

No branch of the Irish live stock industry has advanced so rapidly in recent years as poultry-keeping. Owing to the extraordinary rise in the price of eggs, poultry has become a serious rival to other classes of live stock. The exports of poultry and eggs from Ireland in 1918 were valued at £18,352,578; exports of cattle at £23,047,557; pigs and pig products at £6,692,027; sheep, lambs, and wool at £3,378,833; butter at £5,436,739; steam vessels at £10,147,000; whiskey at £3,796,208; porter at £2,431,676. This gives an idea of the importance of the poultry industry at present to Ireland. The number of poultry in Ireland increased fairly regularly from 6,328,001 in 1849 to 18,976,798 in 1906. In 1907, owing to a new classification introduced into the returns, a more complete enumeration was made of the young fowl, and the total jumped to 24,326,995 for that year. The number rose and stood at 26,472,753 in 1916. It fell to 22,245,024 in 1917 owing to the scarcity of feeding stuffs, but increased to 24,424,230 in 1918, and the numbers have undoubtedly considerably increased since then.

Horse-breeding is a very important feature of Irish agriculture, but as most of the horses bred in Ireland are "consumed" on Irish farms in the production of other forms of agricultural wealth, these animals do not perhaps figure as prominently as they deserve in statistical statements. Of the 624,501 horses in Ireland in 1919, 464,280 were broken, 160,221 unbroken. Of the 464,280 broken horses 407,748 were used for agricultural purposes. The number of horses in Ireland varied comparatively little since 1849. In that year the number was 525,924, it increased to 629,075 in 1859—the largest number recorded until 1895 when the *maximum* of 630,287 was reached. In 1914, just before the outbreak of war, the number was 619,345. This fell to 560,917 in 1915, but had increased to 624,501 in 1919.

2. THE FISHING INDUSTRY

There are records which show that in earlier times the Irish fishing industry was a well-conducted, vigorous branch of

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a lower density than well-tilled Belgium and Holland, that she had fewer sheep *per* 1,000 acres than either Wales, England, Scotland or Italy, and fewer pigs *per* 1,000 acres than Belgium, Denmark, Holland or Germany.

the country's industrial economy. About the year 1829, however, a considerable falling off occurred in its output, and a period of depression ensued, which continued for about thirty years. It was not until the introduction of ice, which provided a means of preserving fish in first-class condition for a comparatively long time; railways, which provided a rapid means of conveying this commodity to distant markets; and steam trawlers, which further lessened the time occupied in putting fish upon the market, that this industry regained something of its earlier prosperity.

Although a preponderance of sailing vessels continues, there has been a marked increase in recent years in the number of Irish-owned steam and motor vessels attached to the Irish fishing fleet. The following table shows the number of vessels of all kinds employed and the number of persons engaged in the Irish Sea Fisheries in the years 1908 to 1917—the latest date for which figures are available:—

Year	NUMBER OF VESSELS.					NUMBER OF PERSONS.		
	1st Class	2nd Class	3rd Class	Un-classed	Total	Men.	Boys	Total.
1908	412	3,112	1,742	814	6,080	22,412	498	22,910
1909	413	3,108	1,642	813	5,976	21,787	445	22,232
1910	390	2,956	1,502	804	5,652	20,339	351	20,690
1911	420	2,914	1,337	844	5,515	19,789	309	20,098
1912	405	2,693	1,185	915	5,198	18,623	352	18,975
1913	401	2,681	1,071	940	5,093	17,823	251	18,074
1914	361	2,443	947	1,090	4,841	17,205	252	17,457
1915	381	2,080	630	1,185	4,276	*	*	15,669
1916	343	2,084	599	1,295	4,321	*	*	15,789
1917	344	2,047	493	1,658	4,542	*	*	16,936

The figures for the year 1915 disclose the fact that in that year there were eight steam vessels of over 100 tons gross tonnage, 65 motor, and 260 sailing boats engaged in trawling.

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* Separate figures were not published for these years.

The numbers of motor-boats employed in the years 1916 and 1917 in the Irish Sea Fisheries were:

	1916	1917
Not exceeding 5 tons	105	119
Over 5 and not exceeding 10 tons ..	66	94
Over 10 and not exceeding 25 tons ..	95	109
Over 25 tons	19	62
TOTALS	285	384

Similar returns have not been published since the year 1917, but a reliable estimate of the number of motor fishing boats owned in Ireland in the year 1919 placed the figures at about five hundred—large and small together.

Of the Irish sea fisheries a well-informed writer recently stated:[1]

> A small fleet of steam trawlers from Dublin is primarily occupied in supplying the Dublin market, and the prospect of developing this method of fishing from Irish ports seems to depend upon a revolution in methods of transport. Trawling by smaller craft along most of the coast yields a fair margin of profit, and a system of seining by motor boats, which the Department (of Agriculture and Technical Instruction for Ireland) introduced from Denmark some years ago, is decidedly lucrative, though, like any other efficient practice, it is freely condemned by longshoremen. Drift-net fishing for mackerel and herrings, whether judged by the quantity or value of the product, forms the back-bone of the industry in Ireland . . . The further development of sea fisheries postulates improvement of harbour accommodation on which the Department have so far spent about £167,000, including some £91,400 from their own slender resources. Much remains to be done in this line, if the funds can be secured, and transit adequately correlated.

The following statement is interesting as showing the distribution of the Irish sea-fishing industry. The year 1914 is the latest for which such data are available:—

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[1] *The Times*, November 4, 1919, p. 44.

NUMBER OF FISHING VESSELS (REGISTERED, UNREGISTERED, AND UNCLASSED) EMPLOYED ON THE COASTS OF IRELAND, ALSO THE NUMBER OF MEN AND BOYS ENGAGED IN THE DEEP SEA AND COAST FISHERIES IN THE YEAR 1914.

Name of District.	Boundaries.	Employed in 1914. Vessels.	Men.	Boys
1. Dublin (Kingstown)	Howth to Greystones ..	100	459	26
2. Wicklow	To breaches three miles north of Five-mile-point Station to the sluices three miles south of Cahore Station, Co. Wexford ..	113	616	22
3. Wexford	Sluices near Cahore Point to Bannow Bay, Co. Waterford	87	267	—
4. Tramore	Bannow to Ballyvoile Head	138	401	2
5. Youghal	Ballyvoile to Ballycotton, Co. Cork	—	—	—
6. Queenstown	Ballycotton Bay to Ringabella Point East ..	51	130	15
7. Kinsale	Myrtleville Point to Galley Head, West, Co. Cork ..	125	436	19
8. Skibbereen	Galley Head to Snave Bridge at the head of Bantry Bay	312	1,302	59
9. Castletown Bere	Kenmare Bridge to Snave Bridge, Co. Cork ..	248	1,224	—
10. Valentia	Kenmare Bridge, South, to Inch Point, North ..	262	1,001	10
11. Dingle	Inch Point, South, to Blennerville, North ..	277	805	3
12. Kilkee	Meenogahane, Co. Kerry, to Hag's Head	169	488	2
13. Galway	Canamallagh, Co. Clare, to Mace Head, Co. Galway	999	3,072	44
14. Keel	Doaghbeg to Doona Head, West, Co. Mayo ..	138	572	—
15. Belmullet	Doona Head to Butter Point Co. Mayo	261	869	—
16. Pullendiva	Bartragh Island, Co. Mayo, to Coney's Island, Co. Sligo	—	—	—

NUMBER OF FISHING VESSELS, ETC.—*continued.*

Name of District.	Boundaries.	Employed in 1914.		
		Vessels.	Men.	Boys
17. Sligo	Strandhill Barracks to Donegal Abbey, Co Donegal	106	518	—
18. Killybegs	Donegal Quay to Lower Ferry, East, Co. Donegal	308	1,281	2
19. Guidore	Gweebarra Bar to Mullaghdoo, Co. Donegal ..	—	—	—
20. Rathmullen	Lough Swilly to Bloody Foreland	225	1,002	—
21. Moville	Inch Embankment, Buncrana, to Magilligan Point, Co. Derry ..	156	715	—
22. Ballycastle (Antrim)	Downhill, Co. Derry, to Jenny's Bridge, Co. Antrim	104	229	—
23. Carrickfergus	Jenny's Bridge to Fort William Park, nr. Belfast	65	135	2
24. Donaghadee	Tilly's Burn, near Belfast Lough, to Newcastle Quay, Down	166	490	2
25. Strangford	Newcastle Quay, North, to Sheepland Head, South ..	—	—	—
26. Newcastle	Sheepland Head to Kilkeel, River Foot, South ..	222	580	38
27. Dundalk	River Foot, Kilkeel, North, to Maiden Tower, mouth of Boyne, South	155	456	1
28. Malahide	Laytown to Baldoyle, Co. Dublin	54	157	5
	TOTAL ..	4,841	17,205	252

The following table shows the total quantity and value of fish (exclusive of salmon) returned as landed on the coasts of Ireland in each of the years 1903 to 1919. The reader will notice that, although the total value has increased in the past four years, the quantity of fish landed on the coasts of Ireland has only averaged 785,635 cwts. per annum for the past seventeen years, a fact which clearly indicates that there is room for considerable further development in this industry.

TABLE SHOWING THE QUANTITY AND VALUE OF FISH (EXCLUSIVE OF SALMON) RETURNED AS LANDED ON THE COASTS OF IRELAND IN EACH OF THE YEARS 1903–19.

Year.	Quantity Cwts.[1]	Value £[2].
1903	838,412	427,800
1904	951,836	393,630
1905	998,206	414,364
1906	753,471	373,491
1907	697,901	341,049
1908	747,056	337,813
1909	993,083	363,801
1910	1,041,351	375,630
1911	989,484	374,085
1912	894,144	367,367
1913	676,392	358,547
1914	589,996	286,489
1915	550,194	374,917
1916	566,137	495,996
1917	662,755	704,240
1918	760,986	1,058,236
1919[3]	644,399	603,736

The major portion of the fresh fish landed in Ireland is despatched to markets in England; whilst, until shipping became scarce during the war years, considerable quantities of pickled mackerel were shipped from Ireland to the United States of America. Russian and German buyers were, in pre-war years, good customers for Irish pickled herrings.

The principal product of Irish inland fisheries is salmon, although this fish is mainly procured in tidal waters or the open sea. Twenty years ago the Irish salmon fishery was estimated to produce £300,000 per annum, while the number of professional fishermen employed in it was reckoned to be from 12,000 to 13,000. The average number of men engaged in the Irish salmon fisheries in 1915 was 11,610; in 1916 it was 10,465; and in 1917 it was 10,525. Oyster fisheries are to be found in Carlingford Lough, Tralee Bay, Clarenbridge, Co. Galway, and less important ones elsewhere throughout the country. The produce of the Irish oyster fisheries in the following years was :—

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[1] Exclusive of Shell Fish.

[2] Inclusive of Shell Fish.

[3] The figures for 1919 are subject to correction in the Department's Annual Returns.

Year.	Quantity No.	Value £
1915	1,491,060	3,546
1916	3,271,635	8,048
1917	2,223,983	6,679
1918	2,598,887	8,603
1919[1]	442,736	768

Mussels are exported in fair quantity, chiefly from Castlemaine Harbour, whilst the Irish lobster industry represents a valuable national asset.

A comparatively small quantity of the fish landed on the coasts of Ireland, as well as that caught in Irish inland fisheries, is consumed in Ireland; the major quantity being exported from the country. At the same time we import from across-channel large quantities of fish, much of which is inferior in quality to that landed on our own coasts. The explanation given for this procedure is that the Irish consumer will not pay the higher price for Irish fish; and, secondly, that the Irish retailer secures a larger profit from the sale of imported fish. No doubt, were the sale of Irish fish more systematically organized in Ireland—were the distributing agencies in a position to cope more efficiently with the home demand and able to guarantee regular supplies, the cost to the consumer could be reduced, and a larger consumption in Ireland of superior quality Irish fish would result.

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[1] The figures for 1919 are subject to correction in the Department's Annual Returns.

This reference to the Irish Fisheries is, of necessity, fragmentary and very incomplete, but the scope of this work does not permit of a more lengthy reference being given to the subject. Tables showing the quantity, value, and kinds of fish imported into and exported from Ireland in each of the years 1904 to 1918, the latest date for which these figures are available, will be found in Appendix I. (see pp. 292–295).

3. THE BACON-CURING INDUSTRY

John Francis Maguire, writing in the year 1853, stated: " Irish bacon brings the highest price in the London market at this moment, being considered superior to the best Hamburg, and infinitely superior to the American." That was only a few years after the failure of the potato crop, at the time of the famine, when the Irish pig industry passed through a period of serious crisis. The entire number of pigs in Ireland in the year 1841 was 1,412,813; in 1848 it had fallen to 565,629; a year later it increased to 795,463, and in 1850 it rose still higher, to 923,502.

The Solicitor-General for Ireland, in a paper which he read before the Social Science Congress in Dublin in the year 1860, estimated that, at that date, the Irish farming classes received about £3,500,000 per annum from this branch of trade, and that the number of pigs in Ireland that year was 1,268,590.

> " Belfast," he stated, " is the only place in Ulster where a large provision trade is carried on, and its exports, partly of hams, are considerable, while in Munster there are large establishments at Waterford, Cork, and Limerick. A large proportion of the bacon and hams cured in Belfast is exported to the colonies, and the remainder finds consumption in this country, as well as in Lancashire and the North of England. A similar trade to that of Belfast has been carried on in Limerick for many years. . . . Of the Irish supply (of bacon) to the London market considerably more than one-half is cured in Waterford. . . . An article is now produced by the Irish curers which brings the highest price in the best markets in the world."
>
> " About 1877," Sir Alec Shaw, of Limerick, tells us, " some of the bacon curers in Munster made efforts to improve the pigs in the districts from which they drew their supplies, but it was not until about ten years later that any organized effort was

made by the members of the provision-curing trade to get the farmers to breed the class of pigs most profitable to themselves and most suitable for the production of high-class bacon."

In his article, which, written in the year 1902, will be found in *Ireland: Industrial and Agricultural,* Sir Alec Shaw further stated:

> The South of Ireland Bacon Curers' Pig Improvement Association has three breeding establishments, one at Limerick, one at Cork, and another in Waterford. To each of these is attached a skilled inspector whose duty it is to keep in constant touch with the boar-keepers in his district; to supply them with boars bred at these establishments or purchased from the herds of reliable breeders, such boars being calculated to rectify the faults that may be noticed generally in the pigs of districts where they are stationed, and to prevent in-and-in breeding. We are informed that this Association has up to the present spent £13,000 in their improvement schemes, and that for the past four years they have sent out over 1,420 boars, which were placed as follows: Tipperary, 231; Galway, 115; Clare, 188; Roscommon, 28; Limerick, 133; Kerry, 67; Sligo, 24; King's County, 51; Cork, 91; Mayo, 74; Queen's County, 77; Kildare, 27; Wexford, 115; Waterford, 71; Kilkenny, 108; and Carlow, 18. Of late years the Congested Districts Board have included the distribution of boars in the good work in which they have been engaged, having placed 230 boars; Donegal having received 37; Cork, 15; Kerry, 18; Mayo, 83; Galway, 40; Sligo, 7; Leitrim, 15, and Roscommon, 15.

In 1901 the Department of Agriculture for Ireland issued its first scheme for the improvement of the breeding of swine. The first clause of the scheme reads as follows: *The joint fund available under this scheme for encouraging improvement in the breeds of swine shall be applied chiefly in providing premiums for selected pure-bred boars; and the remainder may be offered in prizes at county and local shows.*

Thus it will be seen that Ireland has, since 1887, made organized efforts to improve the quality of her swine, and it is to this action that we may attribute the fact that Irish pigs shipped alive, and bacon and hams cured in Ireland, maintain to-day as high a reputation in the markets of the world as they did seventy years ago, when competition was far less severe.

In 1902 there were 20 factories in Ireland engaged in the curing of bacon and hams—exclusive of a number of small curers who killed merely to supply a limited local trade. These factories dealt annually with about 850,000 pigs, and employed over 1,600 workpeople. The Census of Production Returns, 1907, showed some improvement in the number of persons employed, the total number at that date being 2,049, made up as follows, viz: Wage Earners, 1,355 males and 413 females; Salaried Persons, 270 males and 11 females.

The Total Value of the Output was	£3,584,000
Cost of Materials used	3,372,000
Net Value of Output	£212,000

To enable the reader to realize the extent of the export branch of this industry, I give, following, a comparative table, showing the quantity of bacon and hams *exported* from Ireland in the years 1904 to 1918, and the quantity of these commodities *imported* into this country.

	EXPORTS.		IMPORTS.	
	BACON.	HAMS.	BACON.	HAMS.
Year.	Quantity Cwts.	QuantityCwts	Quantity Cwts	Quantity Cwts
1904	780,405	121,061	658,623	25,580
1905	712,984	107,014	732,042	35,019
1906	721,130	115,920	794,680	33,916
1907	859,608	120,021	773,547	27,518
1908	916,677	127,056	845,835	43,794
1909	888,713	116,077	681,469	38,922
1910	886,986	117,506	477,382	25,464
1911	966,834	126,242	614,578	26,786
1912	163,063	142,091	564,093	21,610
1913	995,257	120,419	568,921	23,504
1914	969,139	121,250	557,271	20,543
1915	1,025,367	119,980	763,268	43,978
1916	1,056,856	128,526	832,543	35,617
1917	895,650	71,785	644,683	31,300
1918	378,236	33,184	222,659	6,107

The total value of the *bacon exported* in these fifteen years was £51,019,685 ; an average of £3,401,312 *per annum*. The total value of the *hams exported* was £8,556,341 ; an average of £570,422 *per annum*. The total value of the *bacon imported* was £33,805,791 ; an average of £2,253,719 *per annum* ; and the total value of the *hams imported* was £1,490,342 ; an average of £99,356 *per annum*.

It has been estimated that about 37 *per cent*. of the pigs reared in Ireland are consumed in this country.

The total number of pigs in Ireland in each of the following years was :—

Year	No. of Pigs.	Year.	No. of Pigs.
1851	1,084,857	1908	1,217,840
1861	1,102,042	1909	1,149,179
1871	1,621,423	1910	1,200,005
1881	1,095,830	1911	1,415,119
1891	1,367,712	1912	1,323,957
1901	1,219,135	1913	1,060,360
1902	1,327,610	1914	1,305,638
1903	1,383,516	1915	1,205,249
1904	1,315,126	1916	1,290,289
1905	1,164,316	1917	947,472
1906	1,244,193	1918	974,385
1907	1,317,069	1919	977,963

From this it will be seen that the number of pigs in the country at various intervals during the past seventy years had not changed to any considerable extent until after the bad potato harvest of 1916. The reader should bear in mind that a revolution has taken place in the quality of this stock, owing to improved breeding, and that were it not for this latter fact Irish pigs, bacon and hams would not represent anything like their present-day value. In fact, had not a considerable improvement taken place there would be little or no market for them to-day.

4. PRESERVED MEATS, ETC.

Although this industry is not carried on extensively in Ireland, it is worthy of passing mention, for the reason that one of the two firms engaged in it sends its Irish products to all parts of the world, although the fact that these products are of Irish manufacture is known to comparatively few persons. I refer to the firm of Messrs. Crosse & Blackwell, Ltd., of London, whose factory in the City of Cork has produced the highest quality preserved and tinned meats, fish, and soups for considerably over half a century past. Secondly, the other Irish firm producing these goods—Messrs. W. J. Shaw & Sons, Ltd., Garryowen Bacon Factory, Limerick—added this branch industry to their already extensive bacon-curing factory about twelve years ago, mainly with the object of stimulating an extension of trade in their city.

Following is a Return of the quantity of Preserved Meat exported from Ireland in the years 1904–18 :—

Year.	Quantity Cwts.	Year.	Quantity Cwts.
1904	4,404	1912	11,638
1905	6,190	1913	5,247
1906	8,474	1914	22,720
1907	5,826	1915	8,727
1908	7,749	1916	2,971
1909	7,483	1917	2,835
1910	5,622	1918	4,258
1911	9,010		

The total value of the quantity *exported* in these fifteen years was £381,390 ; an average of £25,426 *per annum.* No doubt a proportion of these firms' products was also included under the heading, " Provisions and Groceries," and a considerable proportion of their output is consumed in Ireland —probably the greater part of that of the Limerick firm.

5. THE BUTTER INDUSTRY

The Irish butter industry ranks amongst the earliest of our industrial activities, and the Irish export trade in this commodity to the West Indies, Spain, Portugal, Brazil, the Mediterranean, California, Australia and other foreign lands was, in earlier days, of considerable magnitude. As the trade developed and circumstances changed it became necessary to place it on a more systematic basis. The first effort in this direction was the establishment of the Cork Butter Exchange, about the year 1770. This institution acted as a most valuable agency in preserving the high reputation of Irish butter. All butter passing through its doors was graded according to quality and branded with the market guarantee before being sold. The same system prevails there at the present day, but the one-time greatness of this market has declined since the development of the Irish creamery industry and the spread of Co-operative Creameries throughout the country. These latter have revolutionized the Irish butter industry and are mainly responsible for having saved it from extinction, having enabled it to compete against the high-grade butter produced in Denmark and other foreign countries.

Some idea of the Irish export trade in butter in the first quarter of the nineteenth century may be obtained from the following table:—

				Cwts.
Annual average of	3	years to	1790	198,140
,, ,,	3	,,	1800	215,100
,, ,,	5	,,	1805	225,187
,, ,,	5	,,	1810	303,586
,, ,,	5	,,	1815	330,635
,, ,,	5	,,	1820	365,226
,, ,,	5	,,	1825	442,883

According to the Census of Production Returns, 1907, the quantity of butter made or blended in Irish Creameries and other butter factories in that year was 670,000 cwts., and the stated value of this quantity was £3,505,000. The total output of butter (including farmers' butter) made in Ireland in the year ended May 31, 1908, was 1,724,000 *cwts.*, valued at £8,879,000; in the year ended May 31, 1913, the total output was 1,764,000 *cwts.*, valued at £9,201,000.

If we examine the return issued by the Department of Agriculture we find that the quantity and value of butter exported from and imported into Ireland in the years 1904 to 1918 was as follows:—

EXPORTS.			IMPORTS.	
Year.	Quantity. Cwts.	Value £	Quantity. Cwts.	Value £
1904	815,783	3,655,728	59,053	300,924
1905	813,921	4,048,409	57,438	314,234
1906	844,027	4,283,437	60,194	350,128
1907	818,004	4,009,072	63,258	360,571
1908	751,942	4,026,023	62,918	384,287
1909	719,625	3,625,111	68,347	394,867
1910	698,907	3,584,810	77,945	477,798
1911	688,362	3,671,264	88,472	535,207
1912	778,778	4,159,972	65,731	432,555
1913	725,368	3,735,645	71,585	454,831
1914	855,608	4,641,673	73,935	467,462
1915	838,089	5,751,385	60,048	443,942
1916	764,456	6,163,427	42,201	369,905
1917	675,330	6,896,808	29,056	303,877
1918	455,911	5,436,739	4,464	55,800

The Census of Production Returns gave the total number of persons employed in Butter, Cheese and Margarine factories in Ireland in 1907 as 4,215, made up as follows: Wage Earners, 2,811 males and 959 females; Salaried Persons, 417 males and 28 females. The total combined value of the output of these factories was returned as £4,020,000; cost of materials used, £3,663,000; *net* value of output, £357,000.

6. THE CHEESE INDUSTRY

Although the Irish dairying industry is of such considerable proportions, the making of cheese is a branch which found little favour until quite recent years. We Irish are not large consumers of cheese, as are the folk across-channel, nevertheless, as will be seen further on, the quantity of our imports of this commodity represents a substantial figure, whereas our home production was, until within the past few years, a very meagre quantity.

TABLE OF IMPORTS AND EXPORTS OF CHEESE.

IMPORTS.			EXPORTS.	
Year.	Quantity. Cwts.	Value £	Quantity. Cwts.	Value £
1904	42,707	119,580	1,142	2,855
1905	41,422	107,697	921	2,395
1906	40,906	117,605	1,222	3,513
1907	44,445	128,890	2,460	7,134
1908	36,159	103,053	3,231	9,208
1909	42,611	121,441	4,015	11,443
1910	43,560	120,879	3,365	9,338
1911	46,573	142,048	6,031	18,395
1912	42,986	137,555	10,260	32,832
1913	45,157	137,729	6,372	19,435
1914	54,838	178,224	9,591	31,171
1915	51,483	209,793	15,711	64,022
1916	40,507	201,522	13,418	54,678
1917	28,399	187,433	18,085	119,361
1918	46,321	312,667	136,452	921,051

In recent years the home demand for Irish cheese has increased, and the quality of the Irish product has improved, so that the purchaser is now growing accustomed to hearing the seller announce the fact, as an additional argument in favour of the cheese he is offering for sale, that it is of Irish manufacture. The principal kind of cheese produced in Ireland is what is known as *cream* cheese.

At the time of writing there are 199 factories engaged in the production of cheese in Ireland, and it is also becoming an increasing habit for Irish farmers' wives to produce one or more cheeses, from time to time, some of which are retained for use by the household whilst a certain number of them are sold.

7. THE MARGARINE INDUSTRY

Few Irish industries have developed at so rapid a rate as has this. Its introduction into Ireland is of comparatively recent date, and for a number of years it made only moderate headway. However, the shortage of butter during the war years and the abnormal demand for substitutes for that commodity gave the margarine industry a first-class opportunity of progressing. This the Irish firms availed themselves of to a very satisfactory extent, and their output during the past five years has risen far above that of previous years.

Following is a Return of the Imports and Exports of Margarine during the years 1904 to 1918 :—

IMPORTS.			EXPORTS.	
Year.	Quantity. Cwts.	Value £	Quantity. Cwts.	Value £
1904	37,385	97,201	28,318	73,627
1905	42,928	108,393	28,262	71,362
1906	45,057	111,517	40,215	99,532
1907	40,187	100,970	33,960	85,324
1908	46,243	118,498	53,076	136,007
1909	45,680	117,626	65,784	169,394
1910	54,376	142,737	71,144	186,753
1911	56,163	146,024	73,171	190,245
1912	75,470	196,222	63,739	165,721
1913	83,807	215,803	58,091	149,584
1914	86,434	203,120	61,982	145,658
1915	109,278	305,978	84,038	235,306
1916	141,751	462,463	163,219	457,013
1917	149,699	643,706	244,382	1,050,843
1918	19,912	103,542	126,353	657,036

The reader should bear in mind that, in addition to their export trade, Irish margarine manufacturers dispose of a large, if not the larger, share of their output in Ireland. The Irish firms engaged in the industry have displayed considerable enterprise, and there is every probability of this industry developing to a still greater extent in the near future.

8. FLOUR MILLING

No Irish industry has had to face fiercer competition from outside these shores, and has done it more successfully in the long run than the Irish Flour Milling industry. Sixty years ago a corn mill was as recognized an institution in each district as the village smithy, but, with the introduction of new methods of manufacture, and the establishment of large-scale mills, trade fell away from these old-fashioned concerns until one by one they fell into desuetude.

The name given to the modern method of milling flour is the *Roller System*. It originated in Buda Pesth in the year 1840, but was not adopted in Ireland until about 1883. It is, however, recorded that one Irish firm of millers installed a roller system as early as the year 1863. The introduction of this system created a world-wide revolution in the milling industry. At first the Hungarians secured the bulk of the trade for the new style of flour, but by the year 1875 the system had been adopted generally in the great wheat-growing districts in America and later it took root in Great Britain. The roller system enabled millers to make attractive-looking flour from the hard wheats such as are grown in the northern districts of America, the Argentine, Russia and Hungary. These wheats, if submitted to the millstone process, produce a much darker and less attractive-looking flour than soft wheats, such as those grown in Ireland, when treated by this older process.

It is not difficult to realize the crisis that resulted in the Irish flour-milling industry. The cost of installing the new type of plant was considerable; further, it required the application of far more scientific methods to produce flour of the quality and texture possessed by the Hungarian and American brands. If the Irish miller wanted to continue in business he had to face and surmount these difficulties.

In many cases he did not possess the capital necessary to undertake so big a proposition, in others he hesitated too long. However, as we have stated, by 1883 a number of enterprising men in this country had installed this new system of flour-milling, but the fight they were obliged to make to recover a satisfactory share of the home market—in earlier days Ireland possessed a considerable export trade in flour—was extremely severe. Fortunately, they were men of the right *calibre*, and it is to them we owe the fact that flour-milling is not to be referred to as one of Ireland's lost industries.

The chief revival in this industry may be dated as within the past fifteen years. A writer in *The Times* of March 17, 1913, in alluding to this subject, stated :—

> The Irish Industrial Associations have done much to remove the prejudice that at one time denied honour to Irish milling prophets in their own country. Not many years ago dealers would tell the manufacturers that if business were to be done in Irish flour it must resemble American in every possible particular. Then came the happy thought of an exclusive national trade mark with its concomitant agitation for the support of home industry. The result was that most Irish millers applied for licence to use the Irish Trade Mark, and to their extreme satisfaction found a new public that asked for Irish flour, and saw that it got it. Not that Irish millers enjoy a monopoly ; but the value to them of this change of sentiment may be measured by the anxiety of their rivals in other countries to adopt marks and brands of Hibernian suggestiveness.

The first step in deciding the relative merits of Irish and American-milled flour occurred in the year 1903, when the present writer purchased three separate pounds of flour—one pound of an American-milled brand (which was the most popular flour on sale in the south of Ireland in those days), one pound of a Cork-milled brand, and one pound of a north of Ireland-milled brand. These he put into unprinted bags marked with numbers ; the next step was to get a first-class baker to bake the contents of each bag separately and number the loaves in accordance with the numbers on the bags. This having been successfully accomplished, he secured the attendance of the agent for the American flour, together with a gentleman who was one of the judges at the

Bakers' Exhibition in London, and got them, jointly, to judge the various loaves—they were uninformed as to the brands of the flour used. The result was that they unanimously placed the Cork flour first, the north of Ireland second, and the American third. This fact was circulated very extensively throughout the country, and helped in destroying the groundless prejudice which existed up to then regarding the quality of Irish-milled flour.

In 1907 we find, by reference to the Census of Production Returns, that the Irish grain and milling industries gave employment to 4,875 persons, subdivided as follows, viz: Wage Earners, 3,991 males and 107 females; Salaried Persons, 735 males and 42 females.

The Total Value of the Output was returned as	£7,463,000
Cost of Materials used	6,750,000
Net Value of Output	£713,000

For several years before the War American competition eased off considerably, mainly owing to the expanding Home demand resulting from the increased population of the United States. But this did not give Irish millers a monopoly of their home market. A number of gigantic mills were erected in close proximity to the principal English seaports. To run a flour mill economically it is necessary to work both day and night shifts. Consequently, England being over milled, the output of these huge mills frequently exceeded the home demand for flour. When their stocks became too heavy, as they frequently did, the cross-channel millers did not reduce the price in their own country; but, instead, dumped their surplus stocks into Ireland at or below cost price. This was one of the kinds of competition which Irish millers were subjected to up to the outbreak of the War. Since then the demand for flour, owing to the world shortage that arose, was so great that the British Government took control of wheat supplies and also of the flour mills in Great Britain and Ireland, regulated the quality and selling price of the products, as well as the disposal of same, and the proprietors of the mills carried on their business under Government instruction and for Government account—they being paid a salary as recompense for their services in managing the mills. Generally speaking, so far as Ireland was concerned, this control worked fairly smoothly and efficiently, and resulted in Irish flour mills, when sufficient wheat supplies reached the country, being kept going to the maximum of their capacity, producing flour for which there was an immediate outlet.

Some of the chief assets derivable by a country from the possession of an extensive flour-milling industry, besides the direct employment given by the industry itself, are the encouragement given to the native farmer to grow larger quantities of wheat, for which he is sure of a satisfactory market, and the fact that the offals produced in the course of manufacturing flour are readily available for pig-feeding in the various districts in which the mills are situated, and so encouragement is given to the extension and development of this latter lucrative industry.

Following is a return showing the quantity and value of wheat-flour imported into Ireland in the years 1904 to 1918:—

Year.	Quantity Cwts.	Value £
1904	5,529,278	2,764,639
1905	5,596,214	2,798,107
1906	5,399,355	2,521,187
1907	5,261,607	2,652,726
1908	4,697,156	2,563,865
1909	4,513,657	2,595,353
1910	4,602,990	2,685,078
1911	5,001,058	2,625,555
1912	4,775,622	2,586,795
1913	4,968,282	2,629,049
1914	5,198,035	2,858,919
1915	4,661,898	3,690,669
1916	4,830,238	4,166,080
1917	5,132,073	6,650,311
1918	5,607,244	7,569,779

At the present day flour mills are operating in the following districts in Ireland: Athy (Co. Kildare); Aughrim (Co. Wicklow); Bagnalstown (Co. Carlow); Ballymena (Co. Antrim); Bandon (Co. Cork); Belfast; Belmont (King's Co.); Bennetsbridge (Co. Kilkenny); Buttervant (Co. Cork); Cahir (Co. Tipperary); Carlow; Castletownroche (Co. Cork); Clara (King's Co.); Clonakilty (Co. Cork); Cork; Crookstown (Co. Cork); Dublin; Enniscorthy (Co. Wexford); Fermoy (Co. Cork); Galway; Kilrush (Co. Clare); Limerick; Londonderry; Lucan (Co. Dublin); Mallow (Co. Cork); Maryboro' (Queen's Co.); Midleton (Co. Cork); Naas (Co. Kildare); Navan (Co. Meath); Portarlington (Queen's Co.); Rathdrum (Co. Wicklow); Sligo; St. Mullins (Queen's Co.); Thomastown (Co. Kilkenny); Portlaw (Co. Waterford); and Wexford. The number of Irish firms engaged in this industry to-day is forty-four, whilst the number of flour mills operating is forty-nine.

9. BAKERIES AND BISCUIT FACTORIES

Nearly every town in Ireland is possessed of a bakery, and the number of biscuit factories in the country amounts to about half a dozen. The leading concerns in the latter industry are situated in Belfast, Dublin, and Londonderry, much the largest of these being the Dublin factory of Messrs. W. & R. Jacob & Co., Ltd., whose products are shipped to all parts of the world.

The pioneers of machine biscuit-making in Ireland were Messrs. George Baker & Co., of Cork, who established this industry in the year 1844. Since then, although the industry has been confined to a limited number of Irish factories, it has developed very considerably. The following details have been extracted from the census of Production Returns, 1907:—

The total number of persons employed in these industries in 1907 was returned as 9,445, made up as follows: Wage Earners, 6,434 males and 2,130 females. Salaried Persons, 681 males and 200 females.

VALUE OF OUTPUT. YEAR 1907.

	£
Bread	1,657,000
Bread, Cakes, Pastry, etc.	875,000
Biscuits, Cakes, Pastry, etc., not separately distinguished ..	685,000
Sugar Confectionery (including Chocolate Confectionery)	2,000
Marmalades, Jams, Fruit Jellies, and other Products	15,000
Total Value of Output	£3,234,000
Cost of Materials used	2,282,000
Net Value of Output	£952,000

The following details should also be read in conjunction with the above, viz :—

COCOA, CONFECTIONERY AND PRESERVING FACTORIES.

VALUE OF OUTPUT, 1907

	£
Sugar Confectionery (including Chocolate Confectionery)	214,000
Marmalade, Jams and Fruit Jellies ..	131,000
Other Preserved Fruit (including Crystallized Fruit, Candied Peel, etc., Fruit, canned or potted)	16,000
Bread, Biscuits, Pastry, etc.	8,000
Other Products	3,000
Total Value of Output	£372,000
Cost of Materials used	276,000
Net Value of Output	£96,000

The total number of persons employed in these industries was returned as 1,644, made up as follows: Wage Earners, 370 males and 1,141 females. Salaried Persons, 111 males and 22 females.

Following is a return of the quantity of biscuits *imported* into and *exported* from Ireland in the years 1904 to 1918. As will be seen, it indicates a most satisfactory condition of affairs so far as this industry is concerned.

BISCUITS.

IMPORTS.		EXPORTS.
Year.	Quantity Cwts.	Quantity Cwts.
1904	54,189	228,732
1905	55,066	245,391
1906	60,986	265,935
1907	68,630	270,632
1908	67,793	284,278
1909	71,486	277,660
1910	73,591	335,970
1911	80,976	350,191
1912	89,220	368,904
1913	92,430	313,820
1914	89,759	331,707
1915	82,058	335,602
1916	71,939	320,806
1917	46,047	415,948
1918	47,343	373,724

The total estimated value of the biscuits *imported* into Ireland in the fifteen years mentioned above was £1,776,176, being an average of £118,412 *per annum*, whilst the total estimated value of the biscuits *exported* from Ireland in those years was £8,681,196, being an average of £578,746 *per annum*. The estimated value of the biscuits *exported* from Ireland in the year 1918 was £1,345,406.

10. THE OATMEAL INDUSTRY

Several large mills in Ireland specialize in the production of oatmeal and *Rolled Oats*, a few Irish flour mills also produce this commodity, and numerous small grinding-mills throughout the country do likewise. The home demand is so well catered for by Irish firms that one is inclined to jump to the conclusion that here, at least, is an Irish product which has captured the Irish market, and is not subjected to outside competition. When we examine more closely into the facts we find that this is not the case; that although Irish mills produce the highest quality oatmeal procurable, and, if properly supported, could produce a sufficient quantity to meet the full needs of the country, still we import a very considerable quantity of this article, and our imports exceed the amount of our exports. The following table illustrates this fact, and

RETURN OF IMPORTS AND EXPORTS OF OATMEAL.

IMPORTS.		EXPORTS.
Year.	Quantity Cwts.	Quantity Cwts.
1904	152,636	176,244
1905	151,151	195,844
1906	170,984	188,949
1907	174,185	181,228
1908	194,798	150,044
1909	134,748	164,998
1910	169,358	146,526
1911	172,909	111,397
1912	164,651	106,476
1913	163,826	124,815
1914	132,786	109,704
1915	119,015	108,762
1916	140,353	89,823
1917	134,462	92,243
1918	140,294	60,715

shows that the amount exported from Ireland has been steadily decreasing for years past.

The total value of the quantity *imported* in these fifteen years was £1,706,576, being an average of £113,772 *per annum*, whilst the total value of the quantity *exported* was £1,367,025, being an average of £91,135 *per annum.*

CHAPTER II

SHIPBUILDING AND ENGINEERING

I. SHIPBUILDING

NO other industry, with the exception of agriculture, distributes so large a sum annually in Ireland as does that of shipbuilding. The chief seat of the industry is in Belfast, where the two leading Irish firms in this line have their yards. The world-famous firm of Messrs. Harland & Wolffe, Ltd.,[1] the larger of the two, was established under the title of Messrs. Robert Hickson & Co., in the year 1853; its yards at present cover an area of 220 acres, and during the years 1915 to 1918 the number of workpeople employed ranged from 13,000 to 20,000.

The following excerpts are taken from a very interesting pamphlet, entitled, *The History of Belfast Shipbuilding*, written by Professor C. H. Oldham, of the National University, Dublin, in 1910.[2]

Edward James Harland, a younger son of a doctor in Scarborough, had served an apprenticeship of five years, 1846-50, with Robert Stephenson & Co., engineers, at Newcastle-on-Tyne. He had worked as a journeyman on a wage of 20s. a week with the same firm till 1851, and then at Glasgow till the autumn of 1853 with J. & G. Thomson, an able firm of marine engine builders, who were just starting to build their own ships. Declining a more permanent position at increased salary, young Harland came back to the Tyneside to take up a manager's position, offered to him by Mr. Thomas Toward, a shipyard owner, whose health necessitated his spending the winter abroad. There Harland was superintending the building of ships and marine boilers, and he had full charge of the works. It seems to have been a good opening for an able young man. But the future prospects of the Tyne firm, in view of the master's infirm health, were somewhat uncertain, and Harland was so much struck with the advantageous location of the new Queen's Island yard, where he knew he would have a free hand, that he applied for the Belfast situation and got it. . . . After he had carried on Messrs. Hickson's business successfully for three years, Mr. Harland resolved to start somewhere as a shipbuilder on his own account. He was enquiring after suitable sites on the Mersey estuary, when Mr. Hickson frankly met him with a satisfactory proposal for the transfer by purchase of his interest in Queen's Island works.

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[1] This firm also engaged in the building of the largest type of aeroplane during the latter years of the recent war.

[2] "The History of Belfast Shipbuilding" (A. Thom. & Co., Ltd., Dublin, 6d.).

In 1859 the sale was completed, through the assistance of his friend, Mr. G. C. Schwabe, of Liverpool, and Mr. Harland began to look about for orders as his own master. Some six years back, while working as a journeyman at Glasgow, he had been the means of assisting Messrs. John Bibby, Sons & Co., of Liverpool, in the purchase of a steamer. That firm now entrusted him with what at the time was a large order—the building of three screw steamers, each 270 feet long, by 34 feet beam, and 22 feet 9 inches in the hold. When arranging for this job, Mr. Harland put his drawing office in the charge of Mr. G. W. Wolffe, an able young draughtsman, who had served an apprenticeship with Joseph Whitworth & Co., of Manchester, and who was a nephew of his trusty friend, Mr. G. C. Schwabe. The works went on prosperously. The three steamers were all completed in the course of 1861, and their delivery was promptly followed by a second order from the Bibby firm for two larger vessels. Mr. Harland at this point took Mr. Wolffe into partnership, and since January 1, 1862, the firm has been known as Harland & Wolffe. . . . Originally the Queen's Island yard had attracted Mr. Harland because its clear frontage allowed of the largest vessels being freely launched. He was the first shipbuilder to perceive that an iron ship need not be kept to the lines that were most suitable for wooden vessels. He had early conceived his theory that if an iron ship were increased in length without a corresponding increase of beam, the carrying power both for cargo and passengers would be much greater, that the ships would show improved qualities in a sea-way, and that (notwithstanding the increased accommodation) the same speed with the same power would be obtained by only a slight increase in the first *capital cost*. This idea was original with him, and is the reason why Belfast has become especially the place for building very large ships. . . . The reputation which Harland and Wolffe first made with the twenty or more ships built for the Bibbys, has been continuously growing, because the firm has ever continued to apply new ideas in the design of their vessels. . . . We have said that the shipbuilding industry was originated in Belfast by the power of one dominant personality. . . . But if Mr. Harland created, a whole group of very able men have contributed to the continued growth of the business. When Sir Edward Harland died in 1895 Mr. Pirrie succeeded him as the chairman of the firm. He had been made a partner in 1874, when 27 years of age. He was head draughtsman at the time when the White Star ships were first designed. The astonishing development of the firm's business in recent years is unmistakable evidence of the energetic spirit and far-seeing ability of Mr. Harland's successor and pupil. It was of Lord Pirrie the late Lord Dufferin spoke the memorable words :

"That he was a man who, by his talents and indefatigable exertions, had so stimulated the activity of his town that he lifted it from its former comparatively inferior position to that of being the third greatest commercial city in the whole Empire."

I would recommend the reader who desires to learn more about the wonderful record of this Irish firm's achievements to procure a copy of Professor Oldham's pamphlet from which I have taken the irresistible liberty of quoting so freely.

The other Belfast firm is Messrs. Workman Clark & Co., Ltd.[1] This firm's business was established in the year 1879. Their yards cover an area of 100 acres, and they employ an average of 10,000 workpeople. They hold the licence for building Parson's steam turbine engines, and have made a speciality of it in their larger vessels. It was they who built the Allan Liner *Victorian*, the first turbine merchant steamer to be placed on the Atlantic service.

In addition to these two firms there are several other shipbuilding and ship-repairing yards in Ireland, viz : The Dublin Dockyard Co., Ltd., North Wall, Dublin, established in the year 1902, with yards covering an area of eleven acres, and employing an average of about 1,000 workpeople. The North of Ireland Shipbuilding Co., Ltd., Foyle Shipyard, Londonderry, established in the year 1912, whose yards cover an area of thirty acres. The Queenstown Dry Dock

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[1] Early in 1920 the Share Capital of this Company was acquired by The Northumberland Shipbuilding Company Limited, who also own or control a number of shipbuilding yards and steel works in Great Britain. The authorized Capital of the Northumberland Shipbuilding Company has been raised from £500,000 to £2,400,000, and at the time of writing powers are being taken to increase it to £7,000,000.

Shipbuilding and Engineering Co., Ltd., of Passage West, and Rushbrook, Co. Cork (now owned by Messrs. Furness, Withy & Co., Ltd.), whose yards have been considerably extended in the past two years. Messrs. J. & R. Thompson, Ltd., of Belfast, established a yard at Warrenpoint, Co. Down, a few years ago, where, in execution of an Admiralty contract, they built five ferro-concrete vessels of about 3,568 tons all told. The number of hands employed ranged from about 150 to 400 at different intervals. Their contract with the Admiralty having expired, they discontinued using this yard, and it is uncertain whether or not it will be reopened as a shipbuilding yard.

There is a Government ship-repairing yard at Haulbowline, in Queenstown Harbour, where a considerable amount of repair work to naval vessels was executed during the period of the War. Before then, however, nothing approaching full use was made of the capabilities of this yard for executing such work.

An additional shipbuilding and ship-repairing yard has recently been established in Dublin. A new company has been formed under the title of Messrs. Dublin Shipbuilders, Ltd., which has acquired about eleven acres of land at the Alexandra Basin, North Wall, Dublin, and has also taken over the existing boat-repairing works of the Ringsend Dockyard Co. It has carried on the latter as a going concern; has laid out the new yard on the most up-to-date lines, and is already engaged in building several vessels.

There are also a few small barge and motor-boat builders, and boat repairing yards at various other ports throughout Ireland.

The history of the Irish shipbuilding industry abounds in fascinating details, and a thoroughly live story could be woven out of the material it offers the historian. The present work, however, is limited to setting forth such facts as will enable the reader to acquire a mental picture of the position of Irish industries in modern times; all other detail has to be excluded, if for no other reason than that the space at our disposal precludes us from enlarging upon the subject.

The following table illustrates the progress that has taken place in this industry since 1842:—

SHIPBUILDING IN IRELAND SINCE 1842.

Year.	Tonnage of Ships Built.	Year.	Tonnage of Ships Built.	Year	Tonnage of Ships Built.
1842	1,042	1868	7,575	1894	97,901
1843	922	1869	7,155	1895	102,067
1844	415	1870	9,160	1896	119,756
1845	446	1871	16,073	1897	109,277
1846	436	1872	14,642	1898	121,330
1847	300	1873	1,878	1899	131,723
1848	138	1874	16,238	1900	131,431
1849	755	1875	7,780	1901	152,402
1850	1,092	1876	9,602	1902	159,763
1851	1,840	1877	6,677	1903	158,542
1852	386	1878	14,755	1904	78,000
1853	2,748	1879	14,549	1905	144,500
1854	4,558	1880	13,842	1906	149,740
1855	5,444	1881	24,045	1907	139,442
1856	4,315	1882	28,122	1908	158,626
1857	7,452	1883	42,548	1909	120,867
1858	2,793	1884	30,686	1910	165,828
1859	3,935	1885	34,311	1911	183,390
1860	7,592	1886	26,471	1912	163,481
1861	7,549	1887	43,691	1913	130,899
1862	8,195	1888	40,326	1914	256,547
1863	9,979	1889	87,668	1915	38,095[1]
1864	17,140	1890	77,376	1916	10,900[1]
1865	9,190	1891	103,466	1917	78,936[1]
1866	9,408	1892	99,827	1918	182,356
1867	13,183	1893	87,256	1919	222,955

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[1] These totals only represent the tonnage of commercial vessels built in those years; they do not include the tonnage, which amounted to a very considerable figure, of Government work executed by Irish shipbuilding yards. The figures of the latter-mentioned work are not procurable.

2. ENGINEERING.

The branches of the engineering trade which exist in Ireland are: (1) General engineering, including iron foundry work; (2) steam engine manufacture; (3) agricultural machinery making; (4) boiler-making; (5) textile machinery making; (6) cycle making; (7) motor engineering; (8) railway engineering; and (9) electrical engineering. With the exception of Nos. (2), (3), (6), and (8), the principal firms engaged in these industries have their works in Belfast. This, of course, is due to the fact that they, to a large extent, act as subsidiary industries to the shipbuilding and linen trades. Nevertheless, there are engineering works under nearly all of these headings to be found scattered throughout the south and east of Ireland, as well as in the north.

The seat of the agricultural engineering industry is in Wexford, where there are four successful firms employed in producing farm implements, and one in Ferns, Co. Wexford, manufacturing agricultural edged tools. All of these cater for the home and foreign markets. One of the Wexford firms—Messrs. Philip Pierce & Co., Ltd.—together with a very enterprising and up-to-date concern in Dublin—the Lucania Cycle and Engineering Works—have the distinction of being the only Irish firms manufacturing bicycles. The only Irish manufacturer of motor-cars is a Belfast firm, and the car it produces has earned for itself a thoroughly sound reputation. The manufacturers of textile machinery in Belfast, as well as a firm there which specializes in the manufacture of tea machinery, fans, driers, etc., have acquired a world-wide reputation for their products. The latter firm's electric fans are in use in all kinds of buildings, railway carriages, and on board steamers in various climes. The principal Irish railway engineering works are at Inchicore, Co. Dublin, and Dundalk, Co. Louth.

The latest *entrant* into the engineering industry in Ireland is the famous firm of Messrs. Henry Ford & Sons, Ltd., of Detriot, U.S.A. This firm has acquired a considerable amount of land in the City of Cork, and is, at the time of writing, engaged in erecting and equipping an extensive first-class factory there for the manufacture of agricultural tractors. When the works are in full working order they will provide employment for a considerable number of highly-paid work-people, and will also be the means of providing additional employment in the district in other industries which will serve as *feeders* to the Ford factory.

During the period of the war ordinary engineering work was brought almost to a standstill in Ireland, owing to the Government taking over control of raw materials. Most of the Irish firms, some of them after considerable endeavour, succeeded in securing contracts for the manufacture of various munitions of war, such as shells, component parts of shells, etc., etc. This subject is dealt with more fully further on.

It is not possible to obtain definite *data* as to the number of hands employed in the Irish engineering industry at the present moment, nor the amount of its annual wage-bill, but the Census of Production Returns, 1907, throw some light on its dimensions at that period. The following particulars are derived from this source. The total number of persons employed in Irish engineering factories (including cycle and motor factories) in 1907 was returned as 5,968—this was exclusive of shipbuilding yards and marine engineering works. The total value of the output and work done was returned as £752,000. Cost of materials used, and amount paid to other firms for work given out to them, £342,000. Value of output, less cost of materials used, etc., £410,000.

The following details, taken from the 1907 Returns, should be read in conjunction with the foregoing, viz. :—

IRON AND STEEL FACTORIES.

SMELTING, FOUNDING AND ROLLING.

Value of Output:	£
Iron Castings	42,000
Cast Iron and Manufactures thereof ..	8,000
Construction of Bridges, Workshops, etc. ..	1,000
All other Products	9,000
Total Value of Output	£60,000
Cost of Materials used	27,000
Net Value of Output	£33,000

The total number of persons employed in these industries was returned as 545, made up as follows, viz.: Wage Earners, 510 males and 1 female; Salaried Persons, 33 males and 1 female.

COPPER AND BRASS FACTORIES.	
SMELTING, ROLLING AND CASTING.	
	£
Total Value of Output	29,000
Cost of Materials used	19,000
Net Value of Output	£10,000

The total number of persons employed was returned as 156, made up as follows: Wage Earners, 138 males; Salaried Persons, 16 males and 2 females.

BRASS FACTORIES.	
FINISHED GOODS.	
	£
Total Value of Output	39,000
Cost of Materials used	22,000
Net Value of Output	£17,000

The total number of persons employed was returned as 256, made up as follows: Wage Earners, 228 males, and 3 females; Salaried Persons, 23 males and 2 females.

TOOL AND IMPLEMENT FACTORIES.	
	£
Total Value of Output	18,000
Cost of Materials used	8,000
Net Value of Output	£10,000

The total number of persons employed was returned as 148, made up as follows: Wage Earners, 144 males and 2 females; Salaried Persons, 2 males.

BLACKSMITHING FACTORIES AND WORKSHOPS	
	£
Total Value of Output	33,000
Cost of Materials used	21,000
Net Value of Output	£12,000

The total number of persons employed was returned as 172, made up as follows: Wage Earners, 146 males; Salaried Persons, 22 males and 4 females.

If up-to-date returns were available it would be found that the engineering and allied trades in Ireland have made a fair amount of headway during the past thirteen years. In one branch alone, that of motor engineering, a considerable development has taken place, and far more employment is given to skilled and unskilled workmen in this branch to-day than was given at the date of the last returns. The progress of these trades in the past seventy years has been gradual, but the Irish engineering barometer shows a steady upward movement since the beginning of the present century, and, if current signs may be relied upon, it is highly probable that these trades will progress even more rapidly in the next few years.

CHAPTER III

THE IRISH TEXTILE GROUP

I. LINEN AND COTTON INDUSTRIES

THE manufacture of linen goods is divided into four main processes, viz.: (1) Spinning; (2) Weaving; (3) Bleaching; (4) Finishing.

These operations are, to a large extent, performed in separate mills:[1] that is to say, certain mills specialize in spinning flax into linen yarn, others in weaving the yarn into piece-goods, and others in bleaching and finishing, and in some cases dyeing, the pieces. Much of the linen when finished is shipped abroad in rolls, or *webs*, whilst a large, if not larger, quantity goes into the *making-up* departments of the mills and to factories which specialize in this work, there to be transformed into handkerchiefs, tea-cloths, bed-spreads, curtains, robes, blouses, and other articles. The embroidering and inserting of lace into these articles is done by (1) out-workers in their own homes, (2) North of Ireland machine embroidery industries, and (3), before the war, quantities were sent to Switzerland to be machine embroidered. Before these articles are boxed for despatch to the sellers they are washed and laundered, and this sub-section of the trade gives employment to a considerable number of hands.

In the middle of the nineteenth century Great Britain as well as Ireland possessed an extensive linen industry. The following figures show the comparative rise and fall of the trade in the three countries in the intervening years:—

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[1] In 1915 the number of power-looms weaving linen in Ireland, attached to flax spinning mills, was only 9,968, whereas the number in weaving factories was 26,856.

IRELAND.		SCOTLAND.	ENGLAND.
Year.	No. of Spindles.	No. of Spindles.	No. of Spindles.
1850	396,338	303,125	265,568
1856	—	—	441,000[1]
1871	896,482	317,085[2]	269,768
1890	840,448	187,755	106,610
1905	812,952	160,085	49,941
1910	935,411	160,000	50,000
1918[3]	955,926	150,000	33,000

The number of spindles in Ireland in 1916 belonged to some fifty different companies—seventeen of them in Belfast, four in Drogheda, Co. Louth,[4] one in Cork, one in Dublin, and the others scattered throughout Ulster.

Mr. Alfred S. Moore tells us that in 1853 there were in Ireland 80 flax spinning mills yielding linen yarn, containing 500,000 spindles, producing yarn per year worth about £2,250,000 at a moderate valuation. In 1862, the second year of the American Civil War, there were in Ireland 105 flax and jute factories, employing 44,000 people. The number of spindles operating was estimated at 594,805 and the number of looms engaged was estimated at 4,666. The value of the linen exported from Ireland during that and the two succeeding years was returned as:

		£
1862	..	6,292,000
1863	..	8,084,000
1864	..	10,327,000

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[1] This figure represented England's *maximum*.

[2] This figure represented Scotland's *maximum*.

[3] Owing to the improvements which have been effected in linen spinning machinery the production per individual spindle is much greater to-day than it was even twenty years ago.

[4] Two of these factories were obliged to close down some years ago. They have since been acquired by the Irish Packing Co., Ltd., for their dead-meat trade.

Two years later it fell to £9,576,245, and the year following to about £7,500,000.

In 1861, the year the American Civil War broke out, Ireland had 592,981 spindles in operation. Ten years later the number had increased to 866,482, but in 1888 it had fallen to 803,000. These variations are explained by the fact that owing to the shortage of supplies of raw cotton during the period of the American War, an abnormal demand arose for Irish linens, but, Mr. Moore points out:

> When cotton supplies assumed their normal proportions, the demand for linen goods diminished, and for the next thirty years or so there were about seven lean years to one fat one. No fewer than thirty-six spinning mills were brought to insolvency, or at least to such financial difficulty that eighteen of them, with 200,000 spindles, ceased to exist. Simultaneously, the other eighteen mills continued under new owners; but, even of these eighteen, six have changed owners twice, while one of the largest mills lived through a long-protracted crisis in so crippled a condition that it was unable to pay any dividend to the shareholders during twenty consecutive years.

In 1910 there were in Ireland 36,892 power-looms for weaving. These were owned by about one hundred companies, and were distributed throughout the country as follows: 21,000 looms working in Belfast; 13,000 in other parts of Ulster; and the remainder scattered between Dublin, Cork, Dundalk, and Drogheda.

In the same year there were, using linen yarn:

In Scotland 17,000 power-looms: In England 4,400 power-looms.

Sir William Crawford gives as one of the reasons of the great displacement of the linen trade in favour of Ireland, as shown by the above figures, that the country "has practically this one textile industry only, whereas England and Scotland have others which have allowed of a higher profit and the payment of a higher scale of wages." Another reason responsible for this situation is that, as the shipbuilding and allied industries give employment to many thousands of males, there is available in Belfast a large female population which is chiefly absorbed by the linen industry, in which the *ratio* of workers is two or three females to one male. The fact that the male members are able to earn comparatively high wages resulted, heretofore, in the female members of the family accepting a lower scale than prevailed in the British cotton industry. The mills elsewhere throughout Ulster are nearly all situated in districts where there is little or no alternative employment for girls and women. In 1910 Sir Wm. Crawford estimated that the average wage paid to operatives in the linen industry in Ireland was 12s. 6d. per week; in 1914, Mr. Alfred S. Moore estimated that it had risen to 15s. per week. The average wage in October, 1919, was, according to *The Board of Trade Labour Gazette*, 26s. 9d. per week.

The following details of the capital employed in the Irish linen trade were compiled by Sir Wm. Crawford in 1910 :—

	£
948,000 Spindles at average price £5 each	4,740,000
37,000 Power-looms at average price £50 each	1,850,000
Bleaching, Printing and Finishing Works, together estimated at ..	750,000
	£7,340,000
Stocks of Raw Materials, Goods in the Process of Manufacture and in a Finished State	£5,000,000 to 6,000,000
Capital employed in giving Credit to Buyers	2,000,000
Say	£14,500,000

He also estimated that in the year 1910 : About £75 was spent in turning £100 of flax into yarn, about £75 was spent in turning the yarn into brown linen, and about £50 was spent in turning the brown linen into white goods, ready for the market. "Thus on £100 worth of flax about £200 is spent, chiefly in wages, and the finished product is worth £300."

A further interesting estimate which he made was :—

AMOUNT PAID IN WAGES TO OPERATIVES AND OTHERS (YEAR 1910).	£
67,027 Women and Young Persons, at 12s. 6d. per week	2,178,377
Bleachers, Printers and Finishers ..	400,000
Embroiderers, Hemstitchers, and Warehouse Hands (including Lappers, Ornamenters, and Box-makers) ..	400,000
Hand-loom Weavers	55,000
Clerks, Managers and other Officials ..	250,000
5 per cent. on Capital	700,000
Total distributed annually	£3,983,377

The total number of persons employed in flax mills and factories in Ireland in the following years has been recorded as :—

Year.	No. of Persons Employed.	Year.	No. of Persons Employed.
1839	9,017	1890	64,475
1850	21,121	1895	66,113
1861	33,525	1907	67,027
1862	37,872	1914	73,000
1885	61,748	1917	90,000

The following Return of the quantity and value of the exports from Ireland of Irish linen yarn and linen goods gives an idea of the magnitude of this trade. The reader should bear in mind that prior to the war about three-quarters of the total quantity of the linens manufactured in Ireland was sold outside of the United Kingdom, and that about seventy *per cent.* of this export was to the United States of America. The values set out below are somewhat misleading as they stand, owing to the fact that prices have fluctuated from time to time, especially during recent years, when they have risen considerably. Therefore the quantity is the safer index to the volume of these goods exported.

RETURN OF EXPORTS FROM IRELAND IN THE FOLLOWING YEARS.

	LINEN YARN.		LINEN GOODS.	
Year.	Quantity lbs.	Value £.	Quantity Cwts.	Value £.
1908	17,227,056	1,148,470	958,660	8,508,107
1909	20,069,952	1,233,466	1,230,427	11,996,663
1910	24,713,696	1,596,093	1,221,793	13,342,998
1911	24,071,768	1,629,859	1,113,296	12,584,884
1912	22,616,496	1,625,561	1,238,980	14,005,636
1913	23,427,936	1,732,691	1,163,952	14,112,918
1914	20,900,096	1,480,423	1,196,086	14,353,032
1915	17,847,424	1,487,285	1,129,108	14,904,226
1916	18,020,576	2,027,315	1,083,208	16,248,120
1917	24,014,480	3,001,810	1,048,958	23,916,242
1918	7,989,408	1,323,246	926,823	32,438,805

A further guide to the growth of this industry in modern times may be derived from the following Return :—

SPINNING MILLS.		POWER-LOOM FACTORIES.
Year.	No. Spindles Employed.	No. Looms Employed.
1850	396,000	88
1861	592,981	4,933
1871	866,482	14,834
1881	879,242	21,779
1892	846,642	28,233
1902	841,604	30,937
1911	945,962	36,942
1912	942,604	37,292
1913	951,246	37,335
1914	955,471	37,293
1915	951,942	36,824
1916	952,092	35,961
1917	951,158	37,176
1918	955,926	37,380

Following are some interesting *data* extracted from the Census of Production Returns for the year 1907. These Returns were compiled from information supplied to the Government by the firms engaged in the industries mentioned.

VALUE OF OUTPUT.

		£
Linen Yarn and Thread		5,488,000
Cordage Rope and Twine (including Hemp Yarn)		103,000
Waste for Paper-making, Felt-making, etc.		47,000
Flax and Tow (dressed) and other Products		135,000
Linen Piece-goods (including Hemp and Union), Plain, Bleached and Unbleached		4,063,000
Fancy (including Checked, Striped, Coloured Damask, Diaper, or other kinds of cloth not included under Plain)		2,020,000
Waste		4,000
Other Products and Work done		6,000
Total Value		£11,866,000
	£	
Cost of Materials used	7,802,000	
Amount paid to other firms for work given out to them	67,000	
TOTAL		7,869,000
Net Value of Output		£3,997,000

The total number of persons employed in the above industries was returned as 67,992, made up as follows: Wage Earners, 21,962 males and 44,888 females; Salaried Persons, 1,066 males and 76 females.

The following Returns should also be read in conjunction with the foregoing:—

MAKING-UP FACTORIES.

ARTICLES MANUFACTURED FROM LINEN OR UNION CLOTH.

		£
Handkerchiefs—Plain		446,000
,, Printed		150,000
Household Articles		624,000
Articles of Clothing		18,000
Other Goods made and Work done for the Trade		27,000
Total Value of Goods made and Work done		£1,265,000
	£	
Cost of Materials used	897,000	
Amount paid to other firms for work given out to them	47,000	
TOTAL		944,000
Net Value of Output		£321,000

The total number of persons employed in the above-mentioned industries was returned as 3,769, made up as follows: Wage Earners, 362 males and 3,099 females; Salaried Persons, 254 males and 54 females.

BLEACHING, DYEING, PRINTING AND FINISHING FACTORIES.

		£
Value of Work done		624,000
Cost of Materials used	£214,000	
Amount paid to other firms for work given out to them	12,000	
TOTAL		226,000
Net Value of Work done		£398,000

The total number of persons employed in the above-mentioned industries was returned as 5,767, made up as follows, viz.: Wage Earners, 4,528 males and 955 females; Salaried Persons, 264 males and 20 females.

FLAX SCUTCHING FACTORIES.

	£
The total Value of Output was returned as	91,000
Cost of Materials used	23,000
Net Value of Output	£68,000

The total number of persons employed in this industry was returned as 3,760, made up as follows, viz.: Wage Earners, 2,641 males and 1,080 females; Salaried Persons, 35 males and 4 females.

From the year 1917 until the termination of the war the Irish linen industry was mainly engaged in spinning and weaving linen fabric in execution of Government contracts (chiefly aeroplane cloth). The Ministry of Munitions alone placed contracts for this cloth with Irish firms to the value of £11,380,468, chiefly with firms in the Belfast area.

The first essential to the success of the linen industry is, of course, a sufficient supply of flax. The flax used in Irish mills in pre-war years was produced chiefly in four countries, namely, Ireland, Belgium, Holland, and Russia. At that period the last-named country supplied over 75 *per cent.* of the total flax produced in Europe. Mr. J. Milne Barbour has stated that *only about one-eighth of the flax required by British and Irish spinners was grown in the United Kingdom.* The following Table shows the quantity of flax imported into Ireland from other countries within recent years and the quantity grown in Ireland:—

	IMPORTED.		GROWN IN IRELAND.	
Year.	Tons.	Value £.	Tons.	Value £.
1908	29,582	1,381,479	7,922	404,022
1909	39,194	1,912,667	7,179	409,203
1910	35,911	1,867,372	8,876	618,361
1911	32,055	1,955,355	11,240	769,940
1912	42,144	2,416,956	12,956	842,140
1913	40,982	2,300,115	12,652	727,490
1914	36,727	2,031,003	8,126	602,678
1915	30,114	2,430,200	9,664	1,265,845
1916	32,576	3,047,484	14,492	2,685,851
1917	28,735	4,278,642	15,362	3,277,227
1918	6,442	966,300	15,703	3,873,407
1919	9,577	Not yet available	13,720	Not yet available

The Table inserted below shows the fluctuations in the area under flax in Ireland in modern times.

AREA UNDER FLAX IN IRELAND.					
Year.	Acres.	Year.	Acres.	Year.	Acres.
1853	175,000	1898	34,469	1910	45,974
1859	136,000	1900	47,451	1911	66,618
1860	120,595	1901	55,442	1912	55,062
1862	150,000	1902	49,742	1913	59,305
1864	301,692	1903	44,685	1914	49,254
1870	194,893	1904	44,293	1915	53,143
1880	157,534	1905	46,158	1916	91,454
1890	96,871	1906	55,189	1917	107,705
1895	95,202	1907	59,659	1918	143,355
1896	72,252	1908	46,916	1919	95,610
1897	45,576	1909	38,110		

Prediction is not one of our functions, therefore we shall express no opinion as to the wisdom or otherwise of the present-day Irish farmer in limiting his flax crop to these figures. If his action is based on the experience of those who moved too rapidly at the earlier period we have alluded to,[1] and who, when cotton supplies recovered their footing on the market, had sad reason to regret their impetuosity, then, perhaps, he is displaying a truer wisdom than he is credited with at the moment. On the other hand, it can be argued that years must pass before the supplies of foreign flax, available for this market, will reach their pre-war level; that prices, in the interim, are almost certain to continue high; that with the opportunities now available for guiding the grower in Ireland in procuring the best possible results from this crop, he has an unique opportunity of securing a much larger, more permanent, more profitable share of this market than heretofore, and that the prosperity of the country, as well as of the Irish linen trade, can be added to considerably by extending the production of flax in Ireland.[2]

A branch of the linen industry which at one time occupied an important position is that of hand-loom weaving. Owing to the vast improvements effected in the power-loom and its products, the hand-loom branch of the trade has found itself unable to withstand the weight of this competition. The fact that its wages bill had fallen from £220,000 in 1893 to £55,000 in 1914 is striking evidence of the shrinkage in its output. Mr. Moore tells us that:

> The finest class of work, such as serviettes, tablecloths, d'oyleys, etc., of the purest linen yarn, are woven by hand alike in factories and in the cottage homes of the weavers. . . . The factories are generally limited to the weaving of damasks and wide sheetings. . . . In the Ballymena district hand-loom weaving is somewhat extensive, the products being used for shirtings and known in the trade as *Ballymenas*.

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[1] The years immediately following the American Civil War.

[2] An organized effort has been made during the past few years by a group of business men to extend the area under flax in the Southern and Midland counties of Ireland. This has met with a fair amount of success. This year another group have begun operations in Co. Cork, and anticipate developing an extensive flax-growing industry in that country, in which, it is claimed, the soil and climate permit of the finest-quality flax being grown.

In the year 1828 an innovation took place in the linen trade. Instead of confining themselves solely to the use of linen yarns in the weaving of linen goods, some Irish manufacturers adopted the use of cotton yarns for the warp and linen yarns for the weft in the manufacture of the cheaper qualities of certain kinds of goods. This method was adopted as a means of competing against cotton goods. It has continued on an increasing scale in the intervening years, and the manufacture of what are described as *Unions* has come to be a recognized and important branch of the trade. Whilst this is, in itself, a perfectly legitimate business—the manufacturer describing such goods as *Unions*—it has resulted, to a certain extent, in unscrupulous traders often selling cotton and *Union* goods to the unsuspecting customer as pure linen. Prosecutions instituted by the Department of Agriculture and Technical Instruction for Ireland, and the Irish Industrial Development Association (Incorporated), have had a useful effect in checking this unfair practice, but a customer in search of a pure linen article would be well advised to insist upon the seller stating in writing, upon the bill or receipt, that the article purchased is pure Irish linen. Should any doubt remain in the mind of the customer, either of the above bodies will gladly test the purchase, and should it prove to be spurious will, at their own expense, prosecute the offender for having misdescribed the goods.

The following table shows the quantity and estimated value of cotton yarn *imported* into Ireland during the years 1904–18. Much the larger part of these imports entered the port of Belfast:—

RETURN OF IMPORTS OF COTTON YARN INTO IRELAND IN THE YEARS 1904–18.

Year.	Quantity lbs.	Value £.
1904	14,031,472	643,109
1905	15,099,280	736,090
1906	14,142,912	604,020
1907	15,621,200	634,611
1908	19,164,096	846,414
1909	17,612,122	880,606
1910	12,076,736	578,678
1911	12,000,688	612,535
1912	13,979,616	684,419
1913	901,712	43,207
1914	920,416	43,720
1915	17,795,456	963,921
1916	28,283,472	2,180,184
1917	23,829,008	2,978,626
1918	23,472,288	4,938,961

The manufacture of linen threads is carried on in Ulster by about seven firms who largely specialize in this branch of the trade, and their output of threads represents a considerable proportion of the total trade of the Irish linen industry. Four of them are members of the world-famous Linen Thread Co., Ltd., the Chairman and Managing-Director of which is Mr. J. Milne Barbour, who is also a Director of the oldest and largest of the Irish concerns, viz., Messrs. Wm. Barbour & Sons, Ltd., of Hilden, Co. Antrim. This latter firm ranks as the pioneer of linen thread manufacture in Ireland, having been established by Mr. John Barbour, a native of Paisley, in Scotland, in the year 1784—136 years ago. At the present day Messrs. Barbour employ over 2,000 workpeople in their mills, while the other three firms referred to give employment, jointly, to about the same number of hands.

Belfast possesses the only cotton thread mill in Ireland. It is owned by Messrs. Hicks, Bullick & Co., Ltd., and was established in the year 1876. This firm has the distinction of being the first applicant for a licence to use the Irish Trade Mark.

Following is a Return of the exports of thread from Ireland during the years 1904–18 :—

Year.	Quantity lbs.	Value £.
1904	2,924,432	365,554
1905	2,955,232	369,404
1906	3,109,904	466,486
1907	3,061,632	535,786
1908	2,968,896	358,742
1909	3,291,568	397,731
1910	3,855,264	481,908
1911	4,093,376	537,256
1912	4,446,400	574,327
1913	4,221,616	562,882
1914	4,120,928	515,116
1915	5,743,808	957,301
1916	5,522,272	1,092,950
1917	5,338,704	1,356,921
1918	3,524,864	1,210,016

It is not generally known that Ireland possesses a Textile Testing and Conditioning House. The address is, *The Municipal Technical Institute, Belfast.* Amongst its clients are Boards of Guardians, Asylum Boards, Corporations, Flax Spinners, Linen Merchants, Woollen Manufacturers, Linen Manufacturers, Bleachers and Dyers; whilst materials for testing are also received from Government Departments in London and from public bodies and manufacturers in Great Britain.

Since the termination of the war, the Irish linen industry has experienced a period of slackness; both the spinning and weaving branches have had to work less than the normal number of hours per week, and at the moment of writing it seems probable that the output must be still further curtailed. This situation is due to the shortage of flax supplies. Not alone are existing supplies far below the requirements of the trade, but the outlook in respect to future supplies is very serious. The Government controlled the Irish flax crop for several years past, including the 1919 crop, the produce being compulsorily acquired by them. The control prices fixed for the 1919 crop of Irish fibre were: Minimum £280, maximum £360 per ton. The guaranteed price in 1918 was £360 per ton. At the time of writing continental flax, which has a free market, is fetching up to £1,000 per ton, and inferior quality English flax, which is also uncontrolled, is being sold in Belfast at £525 per ton. These facts, together with the contention of the Irish growers that when they deliver consignments of the 1919 crop the fibre is graded lower than its true quality,[1] thereby reducing the price which they contend they are entitled to receive, may be accepted as an explanation of the falling off in the acreage under this crop in Ireland in the year 1919, a reduction of 47,745 acres as compared with 1918, or 33.3 *per cent.* less.

This condition of affairs has led to the creation of an Irish Flax Producers' Association,[2] which is at present conducting an energetic agitation on behalf of its members.

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[1] The total amount of the 1919 Irish flax crop purchases under control to February 14, 1920, was 7,963 tons. The quantities in tons allocated to various grades were: Grade (1) 157, (2) 550, (3) 1,532, (4) 2,507, (5) 2,079, (6) 846, lower grade, 292.

[2] The objects, *inter alia*, of this organization are:

"1. To demand immediate decontrol of flax.

The weaving branch of the linen industry has been severely hit in consequence of the shortage and the abnormally high and continually increasing cost of yarns. The shortage has, necessarily, reduced output, and the upward tendency in price has prevented manufacturers from accepting orders for future delivery, as it is impossible to determine the figures at which such orders could be profitably undertaken.

The situation has been eased to some extent by the factories resorting to the manufacture of cotton and hempen goods on a fairly extensive scale. The imports of cotton yarns into Belfast have increased considerably for some years past, and it will probably be found that the 1920 figures will far exceed those of any previous year.

Before the war the Irish linen industry was able to procure abundant supplies of flax at a low figure, wages in the industry, as we have shown, ruled very low, and other expenses coincident to the manufacture and marketing of linen were relatively normal. To-day the industry finds itself faced with a present and prospective shortage of raw material, with the cost of flax vastly increased, the average wage, though by no means too high, has risen more than one hundred *per cent.* in the past ten years, freights have reached abnormal figures, coal is treble its pre-war price, and all other expenses which it is necessary to incur in conducting a linen spinning or weaving industry have risen far above those ruling in pre-war years. Further, customers throughout the world have accustomed themselves to the use of linen substitutes. Cotton goods

"2. To demand freedom of export and the removal of all other unnecessary restrictions relating to handling and sale of flax.

"3. To co-operate with the Flax Growers' Associations of France, Belgium, Holland and Russia.

"4. To protect and assist any of its members against whom persecution of any kind is directed.

"5. To extend and encourage flax production throughout Ireland.

"6. To organize Flax Producers into one strong representative body.

"7. To formulate and put into operation any scheme found most advantageous and to the interests of Flax Producers in the marketing of their flax.

"8. To establish an Information Bureau to keep members fully advised on the prices and production in all parts of the world, and to publish regularly current quotations.

"9. To agitate for legislation making it a penal offence (as in France) for any body of men to combine for the purpose of restricting prices payable to farmers."

have been brought to so great a state of perfection in recent years that they are now a more formidable rival of linen goods than ever before. Japan has made rapid strides in capturing a considerable share of the markets of the East for her cotton products. In 1913 she exported £12,000,000 worth of cotton items; by 1918 the amount had advanced to £50,000,000. It is safe to assume that an enterprising country such as Japan, with an endless supply of cheap labour and an increasing mercantile marine, will press the advantage which she has acquired to its utmost limit.[1] It must also be borne in mind that the linen industry is not confined to Ireland, that pre-war returns showed that the number of spindles on flax abroad were :—

France	577,449
Russia	358,000
Belgium	329,560[2]
Austria-Hungary	296,833
Germany	287,009
Italy	126,080—on flax and hemp
Holland	8,000

Total: 1,982,931 Spindles.

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[1] The present number of spindles at work on cotton in Japan is 3,335,084; orders for an additional instalment of 1,500,000 spindles have been placed in foreign countries, and a project is on foot to manufacture spindles in Japan.

The countries to which Japanese cotton textiles are chiefly exported are China, British India, and Russian Asia.

The chief items of export during 1918, were :—

	YARDS
Raw Cotton and Raw Sheeting	359,072,000
Twilled Cotton	235,469,000
Imitation Nankeens	77,421,000
T. Cloth	68,972,000
Bleached Calico and Bleached Sheeting	59,509,000
Printed Cotton	38,016,000

[2] In January, 1920, only 103,166 spindles were operating out of a then total capacity of 311,000 spindles. Production was restricted through lack of raw material.

In 1918 the total number of spindles on flax in Ireland was stated to be 955,926, and for Great Britain and Ireland combined 1,138,926. Canada, the United States, and Japan also possess some flax spinning mills, and, since the war, much encouragement is being given to this industry as well as to the extension of the local flax crop in Canada.

There is still another factor which bears with considerable weight upon the situation under consideration. It is this. For more than five years past most countries throughout the world have lived beyond their means. They have built up huge national debts which, under the most favourable circumstances, cannot be wiped out in the lifetime of the present generation. To enable these debts to be reduced at all a period of the strictest personal economy must ensue. No doubt there will always be a demand for high-priced goods of superior quality, but it is inconceivable that the demand will be as widespread for many years to come as it was heretofore. Therefore, taking all these factors into account, it is evident that the task which confronts Irish linen manufacturers, in reconstructing their industry, is one of more than ordinary magnitude, it is improbable that the industry can for very many years to come recover its pre-war dimensions, and it will require the exertion of the utmost skill and enterprise on the part of those engaged in it if it is to be rescued from its present perilous position.

A list of the trade organizations connected with this industry will be found in Appendix II (see pp. 296, 297).

2. THE SHIRT AND COLLAR INDUSTRY

Factories engaged in the manufacture of shirts and collars are to be found scattered throughout the entire country, but the chief seat of this industry is in Londonderry, where the larger proportion of the factories are congregated.

Mr. Guy P. Morrish, a Director of the firm of Messrs. Welch, Margetson & Co., Ltd., of Londonderry, in a paper read at the All-Ireland Industrial Conference, held in Derry in 1912, fixed the date of the beginning of the Londonderry shirt-making industry as 1844, whilst the year 1856 marked the introduction of the first sewing machine to the city. In 1912 there were twenty-six firms in Derry employed in making shirts and collars. Mr. Morrish estimated the number of workpeople employed at that date as 7,000 in the factories and 10,000 *outworkers* in the surrounding districts. *Shirt Stations*, he stated, were to be found all through Innishowen (Co. Donegal), the Claudy district of Londonderry, Donemara, and Strabane, to Newtownstewart, in Co. Donegal.

As a rule white shirts are not made throughout in the factory; the fronts, cuffs and neckbands are made and the bodies are hemmed, and then all the parts to complete one dozen shirts are tied together in a bundle with the necessary thread, buttons, labels, and a ticket giving instructions regarding the making and price to be paid for the work. These bundles are sent to the country to be made up by the cottage workers. In 1912 over £40,000 per annum was distributed amongst these latter workers. Most of the Derry factories have their own laundries attached to their works and perform the *dressing* of their manufactures themselves. The making of collars is done entirely in the factories, as is also practically all coloured shirt making. Mr. Morrish estimated, in 1912, that more than 20,000,000 collars were shipped annually from Derry.

The Census of Production Returns, 1907, gave the total value of the output of Irish shirt, collar and cuff factories in that year as £1,041,000.

During the war years this industry was mainly engaged in manufacturing goods for the War Office and other Government departments. The total value of the contracts for shirts placed with Irish firms by the War Office from August 4, 1914, to March 31, 1919, amounted to £3,794,712. Since the termination of the war there has been an abnormal demand for shirts and collars; the output of the Irish factories has kept up to a very high level, and efforts have been made by English manufacturers to purchase some of the Derry factories. A few, but not many, of these have changed ownership. Wages in this industry, as in practically all others, have risen within recent years, and were the figures available it would be found that a much larger amount is now distributed annually amongst the workpeople than was distributed in pre-war years.

3. THE WOOLLEN INDUSTRY

The manufacture of woollen goods is divided into five main processes, viz.: (1) Carding or combing the raw wool, (2) spinning the wool into yarn, (3) dyeing the yarn, (4) weaving the yarn into cloth, and (5) finishing and shrinking the cloth.

A number of Irish woollen manufacturers perform all these operations within their own four walls; others buy the yarns they require and only perform the fourth and fifth operations themselves, whilst all Irish woollen manufacturers purchase a proportion of the yarns used by them in manufacturing cloth. The following Table of the Imports of Wool Yarn into Ireland in the years 1904–18, illustrates this fact:—

Year.	Quantity lbs.	Value £.
1904	2,694,832	269,483
1905	2,554,006	244,759
1906	2,749,798	274,960
1907	1,995,168	195,260
1908	1,550,752	155,075
1909	1,470,336	148,565
1910	2,113,328	215,736
1911	2,686,768	279,872
1912	2,435,888	253,738
1913	2,148,272	228,254
1914	2,516,192	188,327
1915	2,638,832	250,958
1916	2,810,304	362,998
1917	3,089,072	501,974
1918	3,310,832	717,347

Yarns used in the manufacture of Irish woollens are obtained from the following sources, viz.: (1) Spun in Ireland from

Irish-grown wool, (2) spun in Ireland from imported wool, and (3) finished yarn imported ready for weaving.

Unfortunately, Irish-grown wool is of a texture only suitable for conversion into homespuns, blankets, flannels, friezes, and the coarser qualities of cloth. As the existing mills in Ireland making these classes of goods require but a comparatively small quantity of this product, the bulk of it is exported, as is shown by the following Return. The finer qualities of Irish woven cloths are produced from imported wools, chiefly Australian:—

TABLE OF EXPORTS AND IMPORTS OF RAW WOOL FROM AND INTO IRELAND.

	EXPORTS.		IMPORTS.	
Year.	Quantity lbs.	Value £.	Quantity lbs.	Value £.
1904	11,406,528	427,745	3,489,583	130,859
1905	10,707,862	552,124	2,678,368	103,787
1906	11,714,772	610,144	3,347,058	142,947
1907	12,908,573	611,813	3,624,320	156,047
1908	12,811,232	407,024	4,246,144	165,246
1909	17,714,256	747,320	4,284,448	169,593
1910	14,091,840	631,197	4,794,160	204,751
1911	13,305,208	575,173	4,510,576	187,941
1912	17,673,600	773,220	4,372,144	182,173
1913	10,231,312	511,566	4,333,952	185,096
1914	16,367,232	860,985	4,304,608	188,327
1915	10,175,536	741,966	5,475,456	250,958
1916	10,322,928	709,701	4,904,928	296,339
1917	14,597,856	1,094,839	2,727,536	215,930
1918	12,974,752	1,092,042	1,959,216	177,146

Wool exported from Ireland gives employment to many workpeople elsewhere, converting it into yarn, and the profits accruing therefrom are lost to this country. This loss, and that arising from the importation into Ireland of such large quantities of manufactured yarn, is, in the main, unnecessary. If a spinning mill on a fairly large scale were established here to spin woollen and worsted yarns, sufficiently capitalized, and under the control of a skilled manager, there is no reason why it should not prove a thoroughly profitable undertaking. This is a branch of industry which offers a first-class opening for the investment of Irish capital provided the conditions mentioned are complied with. The amount of yarn manufactured from imported wool in Irish woollen mills is by no means a set-off against the amount of manufactured yarn imported into this country. A comparison of the figures in the preceding Returns will demonstrate the truth of this statement.

There are no reliable *data* showing, in detail, the changes that have taken place in the Irish woollen industry in modern times, but the following fragmentary information may help the reader to form some idea of the progress that has been made.

In 1856 there were twenty-seven woollen and six worsted mills operating in Ireland; by 1863 these numbers had changed to thirty-nine and three respectively. In other words, there had been a total increase of nine mills within seven years. This development was, no doubt, due to the increased demand for woollens resulting from the American Civil War.

A Report of the Inspector of Factories, dated October 31, 1865, contains a passage which is worthy of being quoted, as it sheds some light on the then condition of the industry.

He stated:

> I am glad to notice improvements in the woollen manufacture. New machinery is being introduced on all sides, and a considerable trade in tweeds is springing up. One firm has been executing orders for England, and it is represented that, if mills on a large scale were established there would be a good foreign trade. At present the mills are only able to undertake small orders, and these chiefly for home markets. There are many large mills in all parts of Ireland, built for corn grinding, now standing idle in consequence of the diminished growth of grain, and admirably suited for manufacturing purposes. Some are well suited for communication with the coast and by railways, and are offered at low rents. Labour is cheap, and work plentiful.

Capital is the only thing wanted. But there appears little enterprise in this country, and even limited liability does not stimulate the growth of companies here. It has been suggested to me, that if the cloth of the Constabulary was offered to Irish manufacturers it would encourage the trade greatly. *I am afraid this is against the laws of political economy, and quite an exploded fashion of fostering a trade*; but if practicable, it might call into being mills and machinery which would have plenty of work afterwards; and it seems generally admitted that some extra encouragement is required in this country for the employment of the poor. From the very favourable reports I hear of the woollen trade, I think it may yet be very greatly extended. It was once the trade of the country, and, as it appears to me, the natural one.

In the year 1899, the number of woollen mills in Ireland was stated to be 82, employing 3,443 persons; in 1902 the number had increased to 114, whilst the number of persons employed had fallen to 3,323. The Census of Production Returns, 1907—the latest published—contain the following information regarding the number of persons employed in this industry in Ireland in that year, viz. :—

MALES.				FEMALES.		
	Under 18 years of age	Over 18 years of age	Total.	Under 18 years of age	Over 18 years of age.	Total.
Wage Earners	244	1,247	1,491	314	1,370	1,684
Salaried Persons	5	145	150	1	15	16
Total	249	1,392	1,641	315	1,385	1,700

It will be seen from this Table that the total number of persons employed in the industry at that date was 3,341, an increase of eighteen as compared with five years earlier.

This Return also contains the following particulars concerning the Irish woollen trade in the year 1907, viz.: Value of output, £607,000; cost of materials used, £403,000; *Net* value of output, £204,000.

In the early months of 1914 a slump in the demand for Irish woollens was commencing to be felt, but the outbreak of war, at the end of July, created so great a demand for all descriptions of textile goods that Irish woollen mills, in common with those elsewhere, were soon afterwards engaged to the maximum of their capacity. The bulk of the demand was for Government contracts, and as supplies of raw material were limited, the latter were, after a short time, commandeered by the Government and rationed to the manufacturers. Firms engaged in producing woollen goods in execution of Government contracts had allocated to them a sufficient quantity of wool, or yarn, to enable them to complete these contracts, but only very small, if any, supplies were, during the latter years of the war, allotted to Irish manufacturers for use in manufacturing goods for *civil* requirements. At the time of writing, Government control of many kinds of wool has been removed, competition for the available supplies of this commodity is keen, and prices have soared to very high figures compared with those which obtained in pre-war years.

For a number of years prior to the war, Irish woollen manufacturers had secured a firm hold of the home market. This was due to the improved quality of their goods and the awakened public conscience here, brought about by the activities of the Irish industrial movement. They had also extended their export trade, a satisfactory proportion of the output being sent to, amongst other countries, Great Britain, the United States of America, China, India, Canada, Australia, France, and the Argentine.

The quantity and estimated value of woollen goods exported from Ireland during the years 1904–18 was as follows :—

TABLE OF EXPORTS OF WOOLLEN GOODS.

Year.	Quantity Cwts.	Value £.
1904	21,699	363,358
1905	21,369	365,054
1906	20,635	364,036
1907	20,607	384,836
1908	25,779	468,103
1909	28,804	523,033
1910	32,383	617,436
1911	31,706	604,528
1912	36,218	690,557
1913	31,441	629,344
1914	33,922	678,440
1915	47,807	1,051,754
1916	49,891	1,373,250
1917	66,860	2,231,453
1918	47,934	1,999,646

The hand-loom, or cottage industry, has fought hard to retain its once comparatively flourishing trade, but circumstances have proved too strong for it, and its output has considerably declined. This trade still continues to a limited extent and has its chief centre in the County Donegal. Homespun goods are also made in a lesser degree, partly for use by the families of the weavers, in parts of Kerry, Co. Cork, Connemara and Mayo. The competition of the power-loom, emigration, the making of lace, embroidery, as well as hand and machine knitting in the cottages of the country folk, have each at various periods, directly and indirectly, affected this industry. Some years ago a number of weavers in Donegal resorted to the use of inferior machine-spun yarn, and in this way reduced the quality of their fabrics. Nevertheless, Ireland—Donegal principally—still produces a quantity of first-quality homespun and home-woven woollen cloth, and no finer material of its kind is obtainable anywhere.[1]

I am indebted to the Congested Districts Board for Ireland for the following statement of the annual value and classes of yarn produced in Donegal, so far as such information is available from the Board's records.

RETURN OF TWEEDS SOLD AT ARDARA, CO. DONEGAL, TWEED FAIRS.

Year.[2]	Homespun Warp and Weft. No. of Webs.	Homespun Weft. No. of Webs.	Mill Warp and Weft. No. of Webs.	Total No. of Webs.	Estimated Value £.
1907	—	—	—	1,341	—
1908	—	—	—	1,476	—
1909	—	—	—	2,438	—
1910	—	—	—	3,287	1,350
1911	—	—	—	3,639	7,610
1912	—	—	—	2,580	11,439
1913	—	—	—	3,154	14,255
1914	—	—	—	1,144	5,023
1915	—	—	—	1,515	6,398
1916	—	—	—	3,040	17,792
1917	—	—	—	2,649	24,486
1918	58	2,449	1,505	4,012	48,333
1919	34	2,178	549	2,761	57,186
April to July, 1919	16	1,257	170	1,443	22,224

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[1] Owing to the abnormal demand for every kind of woollen cloth, there has been a mild revival in the manufacture of Home-spuns during the past year, especially in Connemara, and hundreds of additional spinning-wheels have been operating. The makers of these wheels have been unable to cope with the demand.

[2] The periods are the twelve months ended March 31st of each of the years mentioned.

RETURN OF TWEEDS SOLD AT CARRICK, CO. DONEGAL, TWEED FAIRS.

Year.	Homespun Weft. No. of Webs.	Total No. of Webs Sold.	Estimated Value. £
1907	—	537	1,963
1908	—	565	2,601
1909	—	927	4,184
1910	—	1,507	8,122
1911	—	1,349	6,942
1912	—	1,023	4,655
1913	—	820	3,869
1914	—	232	1,018
1915	—	65	296
1916	255	275	1,455
1917	193	202	1,646
1918	350	350	5,210
1919	342	342	6,660
April to July, 1919	—	110	1,865

One of the reasons why the products of Irish woollen mills are able to hold their own in competition with those made elsewhere is that cotton or shoddy yarn are rarely used in their manufacture. Generally speaking, Irish cloths can be relied upon as having been made solely from pure wool yarns. Prior to the war Irish firms used the finest quality of dyes, and fast colours invariably resulted. During recent years the dyes obtainable were inferior to those of German or Swiss manufacture, and the makers were unable, as a rule, to guarantee the fastness of the colours.

Following is a list of some of the Irish woollen products produced at the present day: Blankets and flannels, cheviots, ladies' dress-cloths, friezes, real homespuns and factory-made *homespuns*, knitted-wools, motor dress materials, overcoatings, travelling and carriage rugs, flannel and flannelette shirtings, suitings, trouserings, vestings, woollen and worsted yarns, worsteds, and woollen cloths of practically every description.

So far as we have been able to ascertain there are, at present, about eighty-five woollen mills in Ireland using power-looms. No reliable figures are obtainable to show the number of looms operating, the number of hands employed, nor the annual wage-bill of this industry.

The mills are situated in the following districts, viz.: Abbeyfeale (Co. Kerry); Ardara (Co. Donegal); Ardfinnan (Co. Tipperary); Athlone; Avoca (Co. Wicklow); Bailieborough (Co. Down); Ballinakill (Queen's Co.); Ballyglunin (Co. Galway); Ballymena (Co. Antrim); Ballymore-Eustace (Co. Kildare); Bantry (Co. Cork); Beaufort (Co. Kerry); Belfast; Blarney (Co. Cork); Boyle (Co. Roscommon); Caledon (Co. Tyrone); Carrick (Co. Donegal); Castlebar (Co. Mayo); Castleblayney (Co. Monaghan); Castlederg (Co. Tyrone; Castlepollard (Co. Westmeath); Clifden (Co. Galway); Coleraine (Co. Londonderry); Convoy (Co. Donegal); Collooney (Co. Sligo); Cork; Crumlin (Co. Antrim); Dripsey (Co. Cork); Dingle (Co. Kerry); Douglas (Co. Cork); Drogheda (Co. Louth); Dublin; Dungarvan (Co. Waterford); Emyvale (Co. Roscommon); Enniscorthy (Co. Wexford); Fermony (Co. Cork); Ferns (Co. Wexford); Foxford (Co. Mayo); Galway; Glanworth (Co. Cork); Kenmare (Co. Kerry); Kilkenny; Kilmathomas (Co. Waterford); Kilmeaden (Co. Waterford); Kilrush (Co. Clare); Midleton (Co. Cork); New Ross (Co. Wexford); Oldcastle (Co. Meath); Rathmore (Co. Kerry); Six-mile-bridge (Co. Clare); Tipperary; Tralee (Co. Kerry); and Westport (Co. Mayo).

It will be seen from the foregoing that this industry is scattered throughout the entire country. Most of the mills, however, are small; the number of workpeople employed by the smaller mills is not considerable, and their joint annual output of goods would not amount to more than that of the combined output of the few larger mills.

If we take the Census of Production figures of 1907 as a guide, we find that at that period the whole Irish woollen and worsted industry employed 3,341 persons—male and female—and that the *gross* value of its output was only £607,000. Let us presume that since then it has increased its number of workpeople by twenty-five *per cent.*—this is, I think, a fair estimate—that would give the number now employed as 4,176. The obvious conclusion we are forced to arrive at from these *data* is, that the development in this industry has been very slow: the entire number of persons employed in it equals about one-fifth of the number of men employed in one Belfast shipyard, and the entire wage-bill of the industry is less than one-fifth of the wage-bill of that one firm. This it must be admitted is a very disappointing picture of what we are accustomed to describe as one of our staple industries. Allowing for the set-backs which befell the industry in earlier years—through no fault of its own—there is no evidence to justify us in arguing that it has been prevented from progressing more rapidly in recent, pre-war, years. Several Irish woollen manufacturers have displayed commendable enterprise in consistently extending their plant and keeping it up-to-date, but one has only to examine the various tables inserted herein to realize that the total expansion of the industry has fallen far short of its possible development. The manufacture of woollens is an hereditary craft in Ireland; there is no great difficulty in procuring and training additional hands, and this industry, in modern times, has been particularly free of labour unrest. The Inspector of Factories, from whose report I have already quoted, stated, in 1865, that *capital is the only thing wanted.* This need is not felt by the larger Irish mills to-day, they being able to finance their businesses without any difficulty, but the smaller ones are, no doubt, prevented from increasing their plant, keeping it up-to-date, and extending their output, because of the limited capital they possess. There is no positive reason why the Irish woollen industry should not expand immeasurably beyond its present limit. But to attain this result it is necessary that those engaged in it should co-operate much more closely than they did in pre-war years. It was only a few years ago that an Irish Woollen Manufacturers' Association was established, but since its inception it has performed very valuable work for the trade. Competing as they do against highly organized external rivals, it is imperative that Irish woollen manufacturers should organize in such a way as to derive the utmost fraction of value out of their mills. By a mutual arrangement it should be possible to adopt a system of specialization in regard to their manufactures. Instead of, as heretofore, one Irish mill producing small quantities of as many varieties and patterns of goods as a number of Yorkshire mills combined, and so wasting valuable time in designing and in continually re-arranging their machines, a considerable economy in time, labour, and money, would result if the machines in each mill were kept occupied for a whole season in producing a smaller number of patterns of goods, increased production would be effected, more perfect fabrics would be produced, and if the mills also adopted a joint system of marketing their goods throughout the world their businesses should flourish to an extent far in excess of that experienced heretofore. Without combination and expert organization there is little possibility of this trade progressing much beyond its present limit, and failing these essentials there is a serious danger that it may be left so far behind in the industrial march that in time it may again decline. In a paper read at the Irish Technical Congress, at Killarney, in the year 1914, Dr. J. F. Crowley pointed out that the *percentages* of operatives in the woollen and worsted trade of Great Britain and Ireland were:

West Riding of Yorkshire ..	72.0	per cent.
Parts of Lancashire	4.9	,,
Worcester, Leicester, Gloucester, Somerset, Wilts and Wales	3.1	,,
Scotland	11.1	,,
Ireland	1.6	,,

The newer mills established in Ireland, and those of the older ones that have adopted up-to-date methods, have had no reason to regret their enterprise. Consequently, it must be presumed that, if properly managed, Irish woollen mills are profit-making concerns. The industry is one naturally suited to the country, but, as we have already stated, if it is to expand to anything like its capable extent the conservative, *early-Victorian*, ideas of so many of its members must be scrapped without delay, organization on the most up-to-date lines must be adopted, closer working arrangements between the various firms must be entered into, and a far keener spirit of enterprise must be displayed. There are plenty of new markets waiting to be captured, and Irish hands are capable of producing the goods; all that is necessary is that the opportunity should be given to them of doing so.

4. THE ROPE AND TWINE INDUSTRY

A number of Irish firms are engaged in manufacturing ropes and twines of practically every description. This is an industry in which Irish makers can justly claim to excel. Several small factories are dotted throughout the country, but the chief centre of the industry is in Belfast. One firm there employs between three and four thousand workpeople, and manufactures 3,500 different sizes and descriptions of ropes, lines and twines, including rope-cables, fine fishing-lines, binder twine, tarred ropes, and fishing-nets.

The following Table illustrates the extent of Ireland's export

ROPE, CORDAGE, & TWINE EXPORTED FROM IRELAND.

Year.	Quantity Cwts.	Value £.
1904	188,977	239,371
1905	205,026	246,031
1906	230,052	290,441
1907	223,951	422,707
1908	223,574	408,023
1909	220,123	401,724
1910	234,521	453,407
1911	241,008	439,840
1912	233,526	447,592
1913	249,069	553,141
1914	264,990	569,729
1915	266,424	579,472
1916	274,347	866,479
1917	292,796	1,093,105
1918	278,788	1,477,576

trade in these commodities, and the reader should remember that the home market also consumes a vast quantity of these Irish-made goods.

5. THE HOSIERY INDUSTRY

No definite *data* are available to illustrate the progress as a whole of this industry, but from the present writer's personal knowledge it is possible to state that it has advanced satisfactorily in the past fifteen years. The old system of the female members of a household hand-knitting socks and stockings for the family has been superseded by the factory machine-knit article. The latter is now so well produced, and, in normal times, retails at so reasonable a price, that it is the exception to meet with hand-knit goods of this sort. However, the Irish hand-knitting industry is by no means dead. The demand in recent years for sports coats, *jumpers*, and such-like goods has given a considerable impetus to this industry, with the result that several thousands of girls and women—chiefly in Co. Donegal—are employed in their own homes making these garments. The factory section of the industry has considerably increased its output of high-class machine-made underwear, whilst some factories engage entirely in this branch of the trade.

The principal districts in which the machine-knitting of hosiery is carried on are: Balbriggan (Co. Dublin); Bandon (Co. Cork); Bray (Co. Wicklow); Belfast; Blackrock (Co. Dublin); Carlow; Cork; Dungloe (Co. Donegal); Limerick; Lisburn (Co. Antrim); Londonderry; Longford; Newtownards (Co. Down); Newtownsmith (Co. Galway); Portadown; Sligo; Tralee (Co. Kerry), and Wexford. In addition to these there are a large number of small knitting industries scattered throughout the country.

The greater proportion of the hosiery made in Ireland is absorbed by the home market, but Returns show that the following quantities were exported in the years mentioned in accompanying table:—

HOSIERY EXPORTED FROM IRELAND.

Year.	Quantity Cwts.	Value £.
1904	2,525	36,350
1905	2,750	39,268
1906	2,784	40,925
1907	2,555	33,034
1908	3,651	43,995
1909	3,445	47,886
1910	4,668	66,519
1911	4,569	65,108
1912	4,158	60,741
1913	3,528	54,096
1914	4,944	79,598
1915	7,138	126,343
1916	11,460	223,088
1917	14,343	300,127
1918	16,906	353,758

6. THE POPLIN INDUSTRY

The poplin industry has succeeded in retaining a firm footing in Ireland despite the many vicissitudes through which the silk trade has passed since its establishment here towards the end of the seventeenth century. It has not, however, developed to more than a moderate extent in recent years. At the present day the industry is confined to Dublin, where five firms are engaged in manufacturing this beautiful fabric.

Poplin consists of a mixture of silk and wool—the warp being made of silk and the weft of wool. The life of an Irish poplin article is much longer than that of one made solely of silk. This fact is ascribed to two causes, namely: the mixture of the two ingredients; and, in part, to the remarkable skill in weaving possessed by the Irish poplin weaver. The uses to which Irish poplin is put are many, but the chief ones are for making into men's ties and bows, ladies dresses, scarves, and hand-bags, and the finest quality banners are also made of this fabric.

This trade being affected by changes in fashions, the number of looms operating in Irish poplin factories has fluctuated a great deal in the last seventy years. The following table illustrates these fluctuations :—

NO. OF POPLIN LOOMS OPERATING IN IRELAND IN THE FOLLOWING YEARS.

Year.	No of Looms Operating.
1845	293
1850	172
1868	397
1870	443
1880	116
1890	70
1899	74
1909	130
1916	122
1919	170

According to the Census of Production Returns, 1907, there were 522 workpeople—276 males and 246 females—employed in this industry at that date. The value of the output was returned as £60,000. Cost of materials used and amount paid to other firms for work given out to them, £31,000. *Net* value of output, £29,000.

At the time of writing there is a demand for at least double the present output of the Dublin mills, but this cannot be met at once owing to the shortage of skilled labour. However, it is pleasant to be able to record the fact that the operatives have agreed, temporarily at any rate, to open the trade to *outsiders*, that is to say, to apprentices other than sons or grandsons of weavers. This progressive step should, in due course, enable the industry to expand far beyond its present dimensions.

7. THE CARPET INDUSTRY

Although the quality of Irish-made carpets and rugs is comparable with the best made elsewhere, this industry has never progressed to a satisfactory extent. The largest Irish factory for the manufacture of carpets is situated in Co. Donegal. This is a branch establishment of a Scotch firm, and the credit of having got them to open a factory in Co. Donegal is due to the Congested Districts Board for Ireland.

The Dun Emer Guild, Ltd., in Dublin, has earned such a high reputation for its beautifully designed and perfectly made hand-tufted rugs and carpets, that it is no longer mainly dependent upon the home market for custom. At the time of writing this industry is executing extensive orders for customers in Denmark, and its work, on its merits, finds a ready sale wherever it is shown.

In the year 1902 the Naas (Co. Kildare) Co-operative Home Industries Association, Ltd., was established for the purpose of providing employment in that district, and the promoters decided that the making of carpets and rugs, by hand, offered a favourable opening for local workers. They therefore procured suitable instructors and a number of hand-looms. For a time work was carried on at the local convent, and then, as the industry developed, a disused malthouse was acquired and suitably equipped. By 1909 the business had progressed sufficiently to justify an increase of capital and the conversion of the concern into a limited liability company under the title of the Kildare Carpet Co., Ltd. Agencies were established in a number of countries throughout the world, and so successful were the results that it was found necessary again considerably to extend the premises and to instal new plant, including dyeing plant and finishing machinery. The Company about this time amalgamated with the Abbeyleix (Queen's Co.) Carpet Co., who were also makers of hand-made rugs and carpets, and the plant of this latter concern was brought up to date.

All went well until the outbreak of war in 1914, when, owing to the sudden stoppage of orders, and the numerous difficulties in procuring suitable raw materials—dyes especially—it was found impossible to carry on satisfactorily, and the owners were reluctantly compelled to close the works. A year later, however, the factory was acquired by the Morton Manufacturing Co., whose headquarters are at Stirling, in Scotland. This firm has succeeded in keeping the business going during the abnormal period from which we have so recently emerged, and is now planning considerably to extend its output.

The carpets made at Naas are entirely hand-made, after the style of the Oriental weaves. They are made in qualities grading from a thick tufted make, like Turkey carpets, to the very fine weave of the Persian type ; further, there is no limit to the number of colours which can be used. Carpets made at the Naas factory are in use in some of the most palatial hotels throughout the world, and on board the largest transatlantic liners.

8. BAG AND SACK-MAKING INDUSTRY

A number of firms in various parts of Ireland manufacture linen and cotton bags and jute sacks. The output of these factories is largely absorbed by the Irish flour-milling industry, coal merchants, potato merchants, and others. The chief Irish factory manufacturing jute bags (other jute-goods as well as linen and cotton bags are also made there) is situated in Clara, King's Co., and gives employment to about 800 workpeople.

9. OTHER TEXTILE INDUSTRIES

The Census of Production Returns, 1907, grouped the following branches of the Textile Industry together for the purpose of those Returns, viz. :

APPAREL :—Men's and boys' suits and parts thereof (coats, vests, trousers, overcoats, etc., including mechanics' clothing and rainproof goods).

Women's and girls' costumes and dresses (mantles, jackets, skirts, blouses, bodices, aprons, pinafores, etc., including rainproof goods).

Men's and women's not separately distinguished: shirts, collars and cuffs, corsets and stays, underclothing, other than hosiery, hats and bonnets, and other products. Alterations and repairs. Amount received for work done for the trade, and for work done on materials supplied by private customers, drapers, etc.

The total value of the output for the foregoing amounted to £4,570,000. Cost of materials used and amount paid to other firms for work given out to them amounted to £2,777,000, the *net* value of the output being £1,793,000.

The number of persons employed in these industries that year was returned as 41,836, namely: 6,455 males and 35,381 females. These were sub-divided into: Wage Earners, 4,990 males and 34,050 females. Salaried Persons, 1,465 males and 1,331 females.

CHAPTER IV

IRISH MINERALS AND RAW MATERIALS

I. MINERALS

THERE are few Irish industrial subjects about which more conflicting theories exist than that of Irish minerals. It is commonly argued that fortunes await the enterprising persons who may decide to work these deposits. How far this belief is capable of realization rests, at present, on a basis of uncertainty. It has been established that minerals exist in this country which offer a satisfactory remuneration to those who are prepared to work them ; the existence of other mineral deposits has also been established, but as to the extent of these latter no exact *data* are known.

In those countries which possess a paternal Government it is this Authority which carries out the initial work of experimental boring and testing mineral deposits. Numerous tests have been made by the British Government to ascertain the extent and commercial possibilities of a number of mineral deposits in Great Britain, but they have made no effort to investigate the possibilities of working Irish minerals commercially, if we except the obscure and incomplete boring operations for coal which have taken place at Lough Neagh.[1] Several definite proposals have been laid before the Government from time to time by responsible Irish bodies, especially during the war years, proposals which the Government would have been fully justified in investigating, but no action resulted. The Geological Survey Branch of the Irish Department of Agriculture has performed as much useful work in this direction as lay in its power, but as its funds amount to no more than a mere bagatelle, and as its work is more in the nature of abstract scientific inquiry, it is unable to carry out definite tests.

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[1] " Mr. Bridgeman informed Major O'Neill that the experimental borings at Lough Neagh were stopped by the Ministry of Reconstruction at a depth of 1,766 feet. The technical advisers estimated that at least another 1,450 feet would have to be bored before the coal measures were reached, and a further 500 feet would have to be gone through to find a good seam of coal."—*Hansard*, Feb. 23, 1920.

Following are particulars concerning some minerals which are being worked in Ireland at the time of writing:—

ANTIMONY ORE:—This valuable mineral is being worked in Co. Monaghan.

BARYTES:—Used in the manufacture of paint—is being worked by two companies in Co. Cork—one at the Duneen Bay Mines, Clonakilty, the other at the Dunmanus Bay Mines, Ballydehob; and a third company is working it at Gleniffe, Co. Sligo.

BAUXITE:—The British Aluminium Co., Ltd., have works at Larne, Co. Antrim, and prepare aluminium there; which is then dispatched to works in Scotland to be finished. Bauxite is also being mined at Clegnagh, Portrush; Irish Hill, Straid; Tuftarney, Newtown—Crommelin, and Urbelreagh, Bushmills—all in Co. Antrim.

CARBIDE OF CALCIUM:—Which is made from lime and anthracite coal, or lime and coke, is well known to every user of an acetylene lamp; it is manufactured at Collooney, Co. Sligo; and Askeaton, Co. Limerick.

CEMENT:—It is an established fact that an abundant supply of all the materials necessary for the manufacture of first quality cement is to be found in several districts throughout Ireland. Despite this fact, cement is, at the moment of writing, manufactured at only two works in Ireland, viz., Drinagh, Co. Wexford, and Magheramorne, Co. Antrim. The former works have been in existence for a considerable length of time, but the output was never very extensive. They have recently changed hands, having been purchased by The Associated Portland Cement Manufacturers, Ltd. This firm are also negotiating for the purchase of land near Skerries, Co. Dublin, where they propose to establish another cement works, with a capacity of about 50,000 tons *per annum*. The works at Magheramorne were established a few years ago by the British Portland Cement Co., Ltd., and have a capacity of about 40,000 to 45,000 tons *per annum*. That the existing works are wholly incapable of meeting even the Irish demand—ignoring for the moment the possibility of an export trade—is evidenced by the following Return, which shows the quantity and value of cement *imported* into Ireland in the years 1904–18.

Year.	Quantity Tons.	Value £.
1904	106,673	137,786
1905	136,589	215,128
1906	113,509	171,683
1907	118,068	196,288
1908	130,097	208,155
1909	129,871	193,183
1910	143,519	206,309
1911	134,718	205,455
1912	154,557	245,359
1913	125,491	213,335
1914	138,541	236,097
1915	99,834	195,508
1916	61,041	148,533
1917	48,935	155,369
1918	57,906	212,805

The true explanation of the reluctance of Irish capitalists to venture into this industry is that it is controlled by British combines[1] who could, if at any time they choose to do so, cut prices to so low a figure that no comparatively small concerns could withstand their competition. Two of these British concerns, as we have mentioned above, have themselves taken up the manufacture of cement in Ireland and it remains to be seen if they will develop the Irish product to its full capacity.

COAL :—The Irish colliery from which the largest annual output is obtained is that at Castlecomer, Co. Kilkenny. This colliery has been worked continuously for many generations past. Recently the Government, after years of agitation, constructed a branch railway line to connect the mines with

[1] The Associated Portland Cement Manufacturers Ltd., (27 concerns) has an *issued* capital of £4,207,000, and debentures to the amount of £4,527,000. The British Portland Cement Co., Ltd., has an *authorized* capital of £2,800,000.

the Great Southern and Western Railway system. In the past the coal had to be conveyed many miles by cart to the nearest railway station. The other principal coal mines operating in Ireland are: those at Arigna, Co. Leitrim, and at Queen's County. A branch railway line has recently been constructed connecting the last-mentioned mines with the G.S. & W. Railway line at Athy, and a line is in course of construction to link up the Arigna mines with the Cavan and Leitrim Railway.

The Census of Production Returns, 1907, contained the following *data* concerning this industry:—

OUTPUT OF COAL, YEAR 1907.	Quantity, Tons.	Value. £.
Anthracite	75,000	36,000
Steam Coal	7,000	3,000
Gas Coal	3,000	1,000
Household Coal	14,000	6,000
TOTAL	99,000	£46,000
Cost of Materials used ..	..	6,000
Net Value of Output	..	£40,000

The total number of persons employed—all males—was returned as 801, made up as follows:—

	Under 16 Years of age.	Over 16 Years of age.	Total.
Below ground	15	526	541
Above ground .. .. (Including those engaged in coal washing) ..	14	214	228
Salaried Persons ..	2	30	32
TOTAL ..	31	770	801

No official record was kept of the output of coal in Ireland prior to the year 1854. As will be seen from the following table there has been an almost continuous decline in the output in each succeeding decade :—

TABLE SHOWING THE OUTPUT OF COAL IN IRELAND FOR THE DECENNIAL PERIODS 1854-1914.

Year.	Tons.	Year.	Tons.
1854	148,750	1894	112,604
1864	125,000	1904	105,637
1874	139,213	1914	92,400
1884	122,431		

Following is the latest Return,[1] showing the total output of coal from Irish mines from 1913 to April 26, 1919. (Extracted from *The Board of Trade Journal*, June 26, 1919, p. 797.)

Period. Year.	Average Number of Persons Employed.	Total Output of Coal.
1913	800	83,000
1914	700	92,000
1915	700	84,000
1916	900	90,000
1917	700	96,000
1918	700	87,400
4 months 1919	800	31,100

The variations in the output during these years were occasioned by the fact that, owing to the abnormal conditions due to the war, there was a frequent shortage of transit facilities. Consequently, large quantities of coal accumulated from time to time at the pit mouth, waiting to be removed; when this occurred the mines were forced to reduce their output.

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[1] See also Return published in Appendix III (see. pp. 298, 299).

The output from the various Irish mines during the year 1918 is shown by the following table, which also shows the number of men employed in each mine, including workmen above the surface as well as below:—[1]

Name of Mine.	Output. Tons.	Number Employed	
		Under ground.	Above ground
Castlecomer Collieries, Ltd. (Co. Kilkenny)	63,675	364	162
Arigna Mining Company (Co. Roscommon)	7,434	65	24
New Irish Mining Company (Queen's Co.)	7,086	60	33
Michael Layden .. .. (Co. Roscommon) (Co. Leitrim)	6,367	35	6
Slieve Ardagh Collieries Co. (Co. Tipperary)	3,945	25	12
Various small Mines ..	3,494	68	39
TOTALS	92,001	617	276

It will be seen that the total output for the year 1918 given in the above table is 4,601 tons in excess of that set out in the Return issued by the Board of Trade. The present writer believes the figures mentioned by the Coal Industry Committee may be accepted as correct.

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[1] Report of the Committee. Irish Coal Industry Committee, 1919, p. 4. (Cmd. 650. Price 2d. net).

DIATOMITE (" KIESELGUHR ") :—Three companies are working this mineral near Portglenone, Co. Antrim, and it is also being worked at Toomebridge, Co. Antrim. Its chief use is for insulating purposes.

FELSPAR is being worked near Belleek, Co. Fermanagh.

IRON ORE :—The mining of this mineral is being carried on by three companies in Co. Antrim.

LEAD ORE is being obtained by washing the *debris* at Glendalough, Co. Wicklow, and operations for lead winning are taking place near Ballysodare, Co. Sligo, as well as in Co. Clare.

OCHRE, which is used in the manufacture of paint, is being worked in the vale of Avoca, Co. Wicklow.

PEAT MOSS LITTER is being produced at Ferbane, King's Co.; Edenderry, King's Co.; Maghery, Lough Neagh (where it is used for generating steam in specially constructed fire-boxes, and electrical energy is produced for running a tramway); Rahan, Tullamore, King's Co.; Enfield, Co. Meath; Castleconnell, Co. Limerick; Umeras, Monasterevan, King's Co.; and Portglenone, Co. Antrim.

An interesting experiment was undertaken some years ago by the Messrs. Hamilton Robb, at their Weaving Works at Portadown, Co. Antrim, where they erected a producer gas plant using peat instead of anthracite coal, and the result has been highly satisfactory. The fuel is conveyed to Portadown by barge from the Peat Moss Litter Works at Maghery, Lough Neagh.

COPPER PYRITES AND SULPHUR ORE is being worked at Avoca, Co. Wicklow, and also near Berehaven, Co. Cork.

ROAD-MAKING MATERIALS :—A number of well-equipped Irish quarries with up-to-date crushing machinery have been engaged for many years past in the working of road-making materials. These quarries are situated in various districts throughout the country.

SALT is being mined and manufactured from brine by several companies in the district of Carrickfergus, Co. Antrim.

SLATE :—There are several slate quarries operating in Ireland and the quality of most of their products is excellent ;

but they, too, require the same improved conditions that we refer to below under the heading of Stones. On an average, slate to the value of over £100,000 *per annum* is *imported* into Ireland.

STEATITE OR SOAPSTONE, which is extensively used in the arts and manufactures—one variety is well known by the name of *French chalk*—is being mined near Lough Gartan, Co. Donegal.

STONES :—Diorite, granite, limestone, marble, sandstones, freestones and whinstone are all being worked at a number of quarries scattered throughout the country. Many of these stones are of first quality, and Irish marble is to be found in buildings of various kinds in many other countries besides this. However, the quantity of stone worked annually in Ireland is but a tithe of what it should be, and there is ample scope for considerable development in this direction. What is needed is the investment of more capital, the introduction of the best types of machinery, better transit facilities, especially in respect of rates for carriage, and general business-like management of the works.

Irish architects could—some do—give great help by keeping themselves informed as to what building materials of Irish origin are procurable and specifying for the use of these in building operations under their control. At the same time it is essential that Irish quarry owners should keep them informed at frequent intervals as to what materials they can supply, and that, when orders are placed, no avoidable hitch should be allowed to occur in delivering the goods within the time specified.

Those who desire to obtain first-hand knowledge of native building materials can do so by visiting the National Museum in Dublin, where a representative collection is exhibited. The credit of having gathered together this exhibit and making it available for Inspection is due to the Dublin Industrial Development Association, the Architectural Association ot Ireland, and the Department of Agriculture and Technical Instruction for Ireland.

TABLE SHOWING THE OUTPUT, IN TONS, OF MINERAL FROM MINES IN IRELAND UNDER THE METALLIFEROUS MINES REGULATION ACTS FOR THE DECENNIAL PERIODS 1873 TO 1913:

Mineral.	1873.	1883.	1893.	1903.	1913.
Barium	3,736	4,588	4,934	2,039	13,289
Bauxite	—	13,478	8,740	6,128	6,055
Copper Ore	8,793	182	—	521	167
Copper precipitate	60	43	—	—	—
Iron Ore	127,132	146,452	67,292	96,325	60,014
Iron Pyrites	37,738	12,180	3,568	2,739	1,840
Lead Ore	1,211	485	59	—	—
Lignite	1,310	—	—	—	81
Ochre	—	1,162	793	—	1,005
Rock Salt	33,751	37,405	41,308	32,234	43,391
Soapstone	—	—	—	—	40
Zinc Ore	858	100	—	—	—

Further particulars of the output of Irish mines and quarries and the number of persons employed in and about them will be found in Appendix III (see pp. 298, 299).

2. THE BRICK INDUSTRY

There are about seventy brickworks in Ireland, but a number of these are not kept regularly employed. When a brisk demand occurs, and the price is remunerative, many of them operate, but at other periods a number shut down. For some years prior to the war very little profit was made by Irish brickworks, as a steady supply of bricks came into Ireland from across-channel, and the ruling prices made it difficult for the Irish concerns to work profitably.

During the war years, as we have stated elsewhere, building operations in Ireland were brought almost to a standstill. Consequently the production of bricks in this country was infinitesimal. A number of the works are now anticipating a better demand for their products, and if the projected Irish building programmes are proceeded with this industry should be considerably stimulated.

The Census of Production Returns, 1907, contained the following information in respect to this industry, viz. :—

Total value of goods made and work done	£105,000
Cost of Materials used	28,000
Net value of Output	£77,000

The total number of hands employed was returned as 1,231, made up as follows: Wage Earners, 1,152 males and 16 females; Salaried Persons, 49 males and 14 females.

One of the prime difficulties from which this industry suffers is the excessive rates charged by Irish Railway Companies for the transit of its products. Where the works are situated within cartage distance of a port they are able to compete for the trade in Irish towns similarly situated, but when they are obliged to send their goods by rail it becomes a difficult problem how to do so profitably.

3. THE BUILDING TRADE

The periodical position of this trade may be taken as a fairly true index of the economic condition of a country. When a country is developing and prosperous, employment in the building trade rises; when it is stagnant or decaying, employment falls below normal. There is not very much material available to indicate the fluctuations that have taken place in the building trade in Ireland within the past seventy years; but by piecing together various *data* one is able to arrive at the conclusion that, after passing through a fairly long spell of intermittent ups and downs, the demand for buildings and constructional work has shown a more upward tendency since the beginning of the present century than it did in the closing half of the preceding one.

The nearest guide we can obtain to the extent of the trade is that supplied by the Census of Production Returns, 1907. In that year the total number of persons employed was 14,330, made up as follows: Wage Earners, 13,432 males and 51 females; Salaried Persons, 792 males and 55 females.

The total value of the Output was returned as ..	£1,891,000
Cost of Materials used, etc.	912,000
Net value of Output	£979,000

During the war years ordinary building operations, so far as Ireland was concerned, were brought to a standstill. The Government took over control of all building materials and only released such quantities as were necessary to erect or repair buildings used in respect of war-work. This had the effect of compelling thousands of Irish building operatives to migrate to Great Britain, there being an abnormal demand there for skilled men of this kind, to work in the erecting of the numerous munition factories and other Government buildings which were put up on that side of the channel. The few *lilliputian* munition factories established in Ireland may be ignored so far as they affected the Irish building trade. A number of Irish builders, rather than close down their works altogether, adapted their wood-working plant to the manufacture of munition boxes, and, after considerable effort by the All-Ireland Munitions and Government Supplies Committee, secured contracts for the supply of a few varieties of these boxes. This work enabled them to keep a certain proportion of their hands employed. The present writer is aware that some of them lost money over these contracts; a few just cleared themselves, without losing money, and a small number made a moderate profit. One and all of them were glad to drop box-making and revert to their regular trade immediately the Armistice was signed.

Owing to the excessive rise in the prices of all building materials, as compared with pre-war prices (an increase equivalent to at least 300 *per cent*), only those persons who are compelled to build are doing so at the time of writing; others who would under normal conditions place contracts for the erection of new buildings are holding back until prices fall. Numerous Municipal schemes have been prepared for the erection of small houses and workmen's dwellings in this country, but these have been held up pending the passage of Bills enabling the Government to bear a fair proportion of the loss that must accrue in consequence of the cost of building, such houses being in excess of their *economic* value. That is to say, the rents obtainable for such houses will be less than the amount necessary to meet the interest payable by Municipalities on the loans they must incur, before they can erect the dwellings, plus the cost of upkeep. Bills on these lines, applying to Ireland and to Great Britain, have now become Law, but the financial clauses of the Irish Bill are less favourable than those of the British Bill and, it is universally agreed, are inadequate to meet the needs of the present situation.[1] Consequently, the Irish building schemes remain in suspense at the time of writing, and an energetic agitation is being carried on with the object of compelling the Government to deal fairly with this country in this connexion.

4. TIMBER PRODUCTS

Timber products enter into so many different industries and branches of industry that it is not easy to classify them under a few headings. Home-grown and imported timber—the latter received in the round—are sawn into planks in Irish saw mills and then converted, in Irish workshops and factories, into numerous articles of general utility. For instance, to mention only a few of these articles, doors, window-frames and joinery of every description, furniture, wash-boards, brush and broom handles, railway-sleepers, carts, railway and other waggons, wheels, motor-bodies, packing cases and hand-trucks are all made in Ireland. There are no definite *data* to guide us as to the extent of these industries at the present day, therefore we must accept the Census of Production Returns, of 1907, as the nearest approach to a reliable estimate of what these industries represent.

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[1] "The cost of the poorest type of house that the Local Government Board has approved is to be £836. That will mean an *economic* rent of 33s. 9d. *per* week. Of this the State will contribute 18s. 9d., and the tenant must pay the balance—15s. That is not a very cheerful prospect. Even in Belfast it is hardly likely that the working-class population is prepared to pay such a sum. The Corporation, apparently, is of that opinion, and it has resolved to see what can be done by direct labour."—*Irish Times*, April 3, 1920.

The Returns referred to grouped the following sections under the headings of "Timber Factories and Workshops," viz. :—

SECTION I. SAWMILL PRODUCTS:

Deals, battens, planks, floorings, match boardings, mouldings, architraves, casings, skirtings, railway timber (creosoted or not), veneers and panel wood.

SECTION II :—

Manufactured Joinery—including fittings for houses, shops and banks, crates, cases and boxes (for packing merchandise), wood turnery (of all kinds), coffins, manufactures of cork, fencing, hurdles, and gates, furniture of wood, other wood goods, firewood, shavings, sawdust, general and jobbing carpentry and joinery work, work done on new buildings, alteration and repair of buildings and work done on commission or *on hire* on materials supplied.

The total value of the output in 1907 was returned as follows :—

	£
SECTION 1.	411,000
SECTION 2.	213,000
TOTAL OUTPUT	£624,000
Cost of Materials used and amount paid to other firms for work given out to them	390,000
Net Value of Output	£234,000

The total number of persons employed in these two sections was returned as 3,340, made up as follows, viz. : Wage Earners, 3,011 males and 44 females; Salaried Persons, 369 males and 385 females.

SECTION III :—

Wooden crate, case, box and trunk factories and workshops.

	£
Total Value of Output	94,000
Cost of Materials used	58,000
Net Value of Output	£36,000

The total number of persons employed in this section was 471, made up as follows, viz.: Wage Earners, 430 males and 5 females; Salaried Persons, 35 males and 1 female.

SECTION IV :—

Carriage, cart, and waggon factories and workshops.

	£
Total Value of Output	134,000
Cost of Materials used	54,000
Net Value of Output	£80,000

The total number of persons employed was 1,282, made up as follows: Wage Earners, 1,099 males and 7 females; Salaried Persons, 172 males and 4 females.

During the latter years of the war, so many regular branches of Irish industry having been brought to a standstill, the greater part of the output of Irish saw mills and wood-working factories consisted of ammunition boxes. Since the signing of the Armistice this work has entirely ceased, and the concerns which were engaged on it have reverted to their ordinary trades.

CHAPTER V

BREWING, DISTILLING, ETC., INDUSTRIES

I. BREWING AND MALTING

BREWING is an Irish industry which, despite the severe regulations governing the sale of its products, showed a consistent upward curve until the recent war years. This fact is evident from a perusal of the following Return of the amount of beer brewed in Ireland in the years mentioned :—

Year.	No. of Barrels.
1856	926,000
1861	1,437,713
1871	1,616,656
1882	2,044,331
1891	2,555,273
1901	3,149,142
1911	3,215,000
1914	3,532,000
1915	3,412,000
1916[1]	3,279,000
1917[1]	2,850,000
1918[1]	1,603,679
1919[1]	1,459,079

In the year 1913 the duty *per* standard barrel of thirty-six gallons was 7s. 9d.: from November 1, 1914, it was increased to 25s. This duty was subject to a rebate of 2s. *per* barrel to March 31, 1916, and of 1s. during the financial year 1916–17. In 1918 this amount was doubled, bringing it up to 50s. *per* barrel; an additional 20s. for the year 1919 was added, thereby raising it to 70s. *per* barrel, and a further 30s. was added in 1920, making the duty 100s. *per* barrel.

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[1] The falling off in quantity in these four years was due to the restrictions as regards output imposed upon brewers by the Government. These restrictions have now been withdrawn.

Altogether there are about twenty-four breweries operating in Ireland brewing stout and porter; about fourteen of these also brew ale. It is estimated that nearly sixty *per cent.* of the stout, porter, and ale brewed in Ireland is consumed in this country. The following return shows the quantity and value of these commodities *exported* in the years 1904–18:—

Year.	Ale and Beer.		Porter.	
	Barrels.	Value £.	Hogsheads.	Value £.
1904	1,546	5,154	514,763	1,647,242
1905	2,024	6,680	539,429	1,737,411
1906	17,189[1]	57,124	571,445	1,828,624
1907	2,421	7,566	610,893	1,954,858
1908	1,724	5,301	621,827	1,642,640
1909	1,616	4,929	625,784	1,653,113
1910	1,899	5,792	695,923	1,838,397
1911	1,636	5,113	729,298	1,926,562
1912	1,298	4,170	794,447	2,098,664
1913	1,335	4,339	859,056	2,269,340
1914	1,679	5,541	689,696	2,446,664
1915	1,997	7,256	887,591	2,500,048
1916	780	3,471	893,777	3,053,738
1917	362	1,818	508,987	2,527,969
1918	745	4,917	490,422	2,431,676

Whilst Irish brewers generally make a proportion of the malt they use, and some make all they require, the majority obtain large quantities from Irish and cross-channel maltsters. It will be seen from the following return that Irish maltsters carry on a fair export trade in this commodity, but that a far larger quantity is imported into Ireland:—

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[1] It is believed that a quantity of *porter* was inadvertently included in this figure, that the amount of *ale* and *beer* exported in 1906 was not as great as this represents it to have been.

RETURN OF MALT IMPORTED INTO AND EXPORTED FROM IRELAND.

IMPORTS.			EXPORTS.	
Year.	Quantity. Cwts.	Value £.	Quantity. Cwts.	Value £.
1904	807,006	511,104	91,222	57,774
1905	738,089	452,079	82,040	50,250
1906	641,879	385,127	84,737	50,842
1907	566,189	339,713	85,132	51,079
1908	808,817	535,841	79,379	52,589
1909	652,872	429,807	161,045	106,021
1910	735,196	468,687	72,892	46,469
1911	830,597	490,551	76,890	48,107
1912	878,642	621,995	74,111	52,585
1913	746,069	500,418	64,216	43,127
1914	1,216,943	757,743	65,163	40,651
1915	632,179	505,743	78,558	62,846
1916	498,023	581,027	67,773	79,069
1917	244,382	325,843	32,903	43,871
1918	36,190	34,455	20,810	19,813

All available Irish barley is used to make malt, but when insufficient in quantity it is imported from abroad.

The Census of Production Returns, 1907, contained the following information concerning the Irish Brewing and Malting industries, viz.: The total number of persons employed in the year 1907 was returned as 6,451, made up as follows: Wage Earners, 5,354 males and 110 females; Salaried Persons, 943 males and 44 females.

		£
The Total value of the Output in 1907 was returned as:		5,849,000
Cost of Materials used	£2,291,000	
Amount paid to other firms for work given out to them	48,000	
		2,339,000
Net Value of Output ..		£3,510,000

LIST OF BREWERIES OPERATING IN IRELAND TO-DAY

The following list contains the names of most, if not all, of the breweries operating in Ireland at the present day. My reason for inserting this information is that, as will be seen, many of these breweries have been in existence for a considerable number of years—several of them for more than a century. The names of the firms, with the exception of the first mentioned, have been arranged in alphabetical order, not in the order of their respective size of output.

The firm of Arthur Guinness, Sons & Co., Ltd., of Dublin, have the largest output of any brewery in the world. It has been estimated that they brew more than two-thirds of all the beer brewed in Ireland and over one-twentieth of the beer brewed in Great Britain and Ireland. The originators of the present firm purchased this brewery in 1759, but it was actually established as a brewery for many years prior to that date.

Other Irish Brewers are: Beamish & Crawford, Ltd.; The Cork Brewery, Cork, established about the year 1751; Thomas R. Caffrey, The Mountain Brewery, Belfast, established about twenty years ago; The Castlebellingham & Drogheda Brewery Co., Ltd., which owns breweries in both of the towns from which the Company take their title—the first named established early in the eighteenth century and the latter in 1825; Cherry Bros., Creywell Brewery, New Ross, Co. Wexford, established about 1830; John D'Arcy & Sons, Ltd., The Anchor Brewery, Dublin, established in the year 1740; Davis Strangman & Co., Ltd., Waterford, established at the end of the eighteenth century; Deasy & Co., Ltd., Clonakilty, Co. Cork, established about 1800; W. J. Downes & Co., Enniskillen, Co. Fermanagh: P. & H. Egan, Ltd., Tullamore, King's Co., established in 1852; The Great Northern Brewery Co., Ltd., Dundalk, established in 1897; Patrick Kiely & Sons, St. Stephen's Brewery, Waterford, established about 1800; George H. Lett, Mill Park Brewery, Enniscorthy, Co. Wexford, established in 1810; Macardle, Moore & Co., Ltd., Dundalk, Co. Louth, established at the end of the eighteenth century; McConnell's Brewery, Ltd., Belfast, established about twenty years ago; The Mountjoy Brewery Co., Ltd., Russell Street, Dublin, established in 1852; Thomas Murphy & Co., Ltd., Clonmel, Co. Tipperary, established in 1798; James J. Murphy & Co., Ltd., Lady's Well Brewery, Cork, established in 1856; Robert Perry & Son, Ltd., Rathdowney, Queen's Co., established about 1800; E. Smithwick & Sons, Ltd., The St. Francis Abbey Brewery, Kilkenny, established in 1710; The St. James' Street Brewery, Kilkenny, established in 1702; Watkins, Jameson, Pim & Co., Ltd., Ardee Street, Dublin, established in 1736, and Wickham & Co., Wexford, established about 1800.

2. THE DISTILLING INDUSTRY

Some years ago a report from the British Consul at Turkey-in-Asia, mentioned that the Mohammedan natives of that district—bound by the tenets of their religion to abstain from drinking wine—had discovered that whisky is not a wine, and were rapidly acquiring a taste for this spirit. The Consul suggested that British distillers should endeavour to capture this new market. That these far Eastern folk are not the only people who have acquired a taste for whisky is abundantly proved by the returns published from year to year of the quantity of this commodity distilled and consumed in Great Britain and Ireland, as well as in countries abroad.

The table, which follows, shows the number of gallons of proof spirits distilled in Ireland at various periods from the year 1820–1918. The reader should bear in mind that these totals include both pot and patent-still spirit, and for some years past industrial alcohol, distilled in Ireland, has also been included therein.

NO. OF GALLONS OF PROOF SPIRITS DISTILLED IN IRELAND.

Year.	No. of Gallons.	Year.	No. of Gallons.
1820	4,607,296	1904	13,010,772
1825	8,835,027	1905	11,798,155
1830	8,694,742	1906	12,650,577
1840	7,281,429	1907	12,053,184
1850	8,293,034	1908	11,653,513
1857	8,910,637	1909	12,192,244
1860	7,405,593	1910	10,758,965
1865	5,483,208	1911	9,723,815
1870	6,599,636	1912	9,747,976
1875	9,674,004	1913	9,875,747
1880	11,159,349	1914	9,878,739
1885	9,833,786	1915	10,249,436
1890	11,817,072	1916	10,839,430
1895	12,679,435	1917	13,201,141
1900	14,480,871	1918	12,407,868
1903	12,441,298	1919	11,076,515

In the year 1853 the duty on spirits produced in Ireland was raised from 2s. 8d. to 3s. 4d., in 1854 to 4s., subsequently to 6s. 2d., in 1858 to 8s., in 1860 to 10s., in 1908 it stood at 11s., a year later it was raised to 14s. 9d., in 1918 to 30s., in 1919 to 50s., and in 1920 to 72s. 6d. *per* proof gallon. These latter increases, and the restrictions imposed by the Government in respect to the limitation of the output of spirits for human consumption during the war years, have had the effect of considerably reducing the average annual production of pot-still whisky in this country. No pot-still whisky was made in Ireland in the year 1918.

Owing to their adaptability for the purpose, a number of Irish patent-still distilleries were able to engage in the manufacture of industrial alcohol during recent years, thereby giving them an advantage as compared with pot-still distilleries, which were, for technical reasons, unable to adapt themselves to the manufacture of this product. As many persons are unaware of the fact, it may be well to mention that, briefly, the difference between a pot-still and a patent-still distillery is that the former manufactures pure malt whisky, made almost exclusively from home-grown corn, whereas the latter, by a different process of distillation, produces a spirit made from maize, Indian corn, oats, and other chiefly imported cereals, and blends with it a small proportion of pot-still whisky to give it flavour and make it palatable.

In the year 1899 there were altogether 29 distilleries operating in Ireland; in 1909 the number had fallen to 26; in 1910 to 25; in 1913 to 24; in 1914 to 22; in 1917[1] to 24; in 1918 to 6, and in 1919 the number operating was 23. These latter 23 were situated in the following countries, namely: Antrim 2; Cork 3; Down 5; Dublin 5; Kildare 1; King's County 1; Londonderry 4; Louth 1 and Westmeath 1.

The quantities of spirits produced in each class of distillery in Ireland during the years ended September 30, 1918, and 1919, were as follows:

	1918 Quantity Proof Gallons	1919 Quantity Proof Gallons.
Distilleries manufacturing Yeast: Using Patent Stills with or without Pot Stills	11,895,849	9,344,123
Distilleries not manufacturing Yeast: Using Patent Stills with or without Pot Stills	—	250,302
Using Pot Stills only	—	2,234,668
TOTAL	11,895,849	11,829,093

The Census of Production Returns, 1907, show that the total number of persons employed in this industry in Ireland in the year 1907, was 2,423, made up as follows: Wage Earners, 2,017 male and 42 female; Salaried Persons, 355 male and 9 female.

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[1] In this year there were 7 distilleries operating in England, and 112 operating in Scotland.

The value of the output that year was returned as follows:

	£
Spirits	1,057,000
Yeast[1]	249,000
Offals and other Waste Products	109,000
Casks, Cases and other Products	4,000
TOTAL OUTPUT	£1,419,000
Cost of Materials Used	905,000
Net value of Output	£514,000

Irish whisky is in demand in very many countries throughout the world, some of the leading brands being as well-known in far-distant lands as in the home country. Consequently the export trade represents a large proportion of the total trade of Irish distilleries.

The following Table shows the quantity and value of Irish-made Spirits *exported* from Ireland in the years 1904 to 1918:—

Year.	Quantity Proof Gallons.	Value £.
1904	8,637,031	2,339,196
1905	8,047,042	2,179,407
1906	7,900,012	2,133,587
1907	8,510,304	2,304,874
1908	8,492,177	2,299,964
1909	6,424,533	1,739,979
1910	7,551,876	2,050,199
1911	7,569,966	2,050,199
1912	7,237,426	1,960,136
1913	7,415,999	2,008,500
1914	7,127,547	1,930,377
1915	5,707,705	1,714,989
1916	3,943,918	4,272,578
1917	2,625,826	3,194,755
1918	3,120,171	3,796,208

[1] Yeast is a product of patent-still distilleries.

The prohibition of the sale of intoxicating drinks in the United States of America has cut off a profitable market from Irish distillers. Whether or not they will be able to discover new outlets which will compensate them for this loss of trade remains to be seen. The introduction into Ireland of the distillation of industrial alcohol, during the war years, proved a valuable asset to the Irish patent-still distillers. The demand for this commodity is certain to increase from year to year, and it is probable that, should there not be as great a demand for Irish whisky in future as there was some years ago, the production in Ireland of industrial alcohol may help to compensate for the falling off in the other class of spirit.

3. AERATED WATERS, ETC., INDUSTRIES

This group, which includes makers of aerated and mineral waters, cider, "British" wines, fruit juices, syrups, and non-alcoholic beverages made therefrom, fruit cordials, vinegar, etc., represents an important branch of Irish industry. According to the Census of Production Returns, the total value of its output in the year 1907 was £474,000. (The aerated and mineral waters industry was responsible for the sum of £398,000 of this amount.) The cost of materials used amounted to £228,000, leaving the sum of £246,000 as the *net* value of the output. The number of persons employed was returned as 2,110, made up as follows: Wage Earners, 1,701 males and 79 females; Salaried Persons, 303 males and 27 females.

The larger aerated and mineral water factories are situated in Dublin and Belfast, and smaller ones are to be found in nearly every fair-sized town throughout the country. The larger firms not alone cater for the home market, but have built up an unrivalled reputation for their manufactures in every country in the world where these drinks are consumed. The following return of the quantities and value of these goods exported from Ireland in each of the years mentioned is ample confirmation of this statement. The reader should bear in mind that the Irish manufacturer is handicapped by having to pay additional freight upon his products when selling them outside of Ireland in competition with those of cross-channel firms.

AERATED AND MINERAL WATERS EXPORTED FROM IRELAND.

Year.	Quantity Cwts.	Value £.
1904	244,131	195,297
1905	268,003	214,402
1906	310,863	248,690
1907	315,834	252,667
1908	279,920	223,936
1909	287,520	230,016
1910	298,887	239,110
1911	346,474	277,179
1912	317,906	254,325
1913	332,265	265,812
1914	271,564	217,251
1915	240,799	192,639
1916	255,235	224,394
1917	158,260	166,173
1918	116,971	163,759

4. CIDER

The manufacture of apple cider in Ireland is of comparatively recent date, but the two firms engaged in this industry—Messrs. Thomas Power & Co., Ltd., Dungarvan, Co. Waterford, and the Co. Armagh Cider Co., Ltd., Portadown, Co. Armagh—have displayed considerable enterprise in building up and continually extending their businesses. The bulk of the cider produced in Ireland is consumed in this country, whilst a small quantity is exported across-channel. This industry has caused an extension of apple-growing in the districts in which it is carried on.

5. THE BOTTLING INDUSTRY

A record of the brewing and distilling industries would be incomplete were I to omit to refer to one of their subsidiary industries, viz., bottling. Large quantities of beer, ale, spirits, etc., are sent out from the makers in barrels and are bottled, to some extent, by the publicans, but to a larger extent by firms who specialize in this trade. One Dublin firm has for a great many years past bottled immense quantities of stout and whisky, which is exported in bottle from this country. So extensive was their trade that prior to the war they were able to keep a steamer plying between Dublin and New York conveying these goods to the U.S.A. Now that the latter country has *gone dry* the steamer, if re-employed in this trade, will have to find other ports of call. The Census of Production Returns, 1907, show that in that year there were 1,181 persons employed in Ireland in bottling factories and workshops, that of these there were 801 male and 157 female wage earners, and 178 male and 45 female salaried persons. The total value of the output for that year was returned as £693,000: the cost of materials used was £549,000, leaving the *net* value of the output as £144,000.

6. THE GLASS BOTTLE INDUSTRY

This branch is all that remains of the once successful Irish glass industry. It has, even in recent years, passed through trying periods, during which several of the smaller concerns were forced to close down. At the time of writing there are only five Irish works engaged in the manufacture of glass bottles, chiefly porter bottles, four in Dublin and one in Belfast. Before the war German-made bottles were imported to a considerable extent into Ireland. During the past few years serious competitors have arisen in England, where several combines in this industry have been established. These people have installed the latest pattern of American automatic machines, which, although the initial cost is very high, produce bottles so rapidly and accurately that they are easily able to compete against the older method of bottle-making. One of these machines has been in use in the Belfast works for a number of years past, and a still larger one has been installed in one of the Dublin works. These latter works have now been acquired by one of the English combines—British Glass Industries Ltd., which has an *authorized* capital of £2,000,000, of which £1,400,000 has been *issued*.

That there is scope for considerable expansion in this Irish industry is evident from a perusal of the following return of the quantity and value of glass bottles imported into Ireland in the years 1904 to 1918.

Year.	Quantity Cwts.	Value £.
1904	244,695	85,643
1905	286,969	100,439
1906	334,436	133,774
1907	351,326	140,530
1908	280,125	119,053
1909	301,829	128,277
1910	378,740	160,965
1911	436,280	194,508
1912	418,074	197,714
1913	418,393	197,865
1914	426,456	216,782
1915	306,468	206,866
1916	309,542	270,849
1917	194,616	187,318
1918	165,410	182,640

My reason for inserting this reference to the Irish glass-bottle industry in conjunction with the brewing, etc., group is that it practically represents a subsidiary branch of the brewing and distilling industries, the manufacture of other kinds of bottles being but an infinitesimal amount of the total output of Irish bottle works.

CHAPTER VI

PAPER-MAKING, PRINTING, ETC., INDUSTRIES

I. PAPER-MAKING

WRITING in the year 1853, the late Dr. W. K. Sullivan described the then Irish paper-making industry as being *one of the most important of the few large manufactures which we possess.* The Revenue Returns gave the number of paper mills in Ireland in the year 1850 as thirty-seven. A parliamentary paper published in 1852 gave the number operating in that year as twenty-eight. That the industry was progressing at that period will be seen from the following Return of the quantity of paper made in Irish mills in the years 1844 to 1852:—

Year.	Quantity lbs.
1844	4,557,306
1845	5,562,104
1846	5,875,775
1847	5,711,546
1848	5,583,461
1849	6,272,563
1850	6,719,502
1851	6,983,646
1852	7,373,012

In the course of time English, Scotch, and foreign competition became more severe and Irish investors showed a disinclination to invest their money in Irish paper mills; one

Irish mill after another dropped out of the trade, until to-day only six remain. Four of the six are situated in Co. Dublin, one at Ballyclare and one at Larne, in Co. Antrim.

The Census of Production Returns, 1907, show that in that year there were 570 persons engaged in this industry, made up as follows: Wage Earners, 378 males and 152 females; Salaried Persons, 31 males and 9 females.

The total value of the output in 1907 was returned as £175,000.

Perhaps no Irish industry has benefited more directly than has this as a result of the Irish Industrial Movement. Since the inauguration of the Movement, and owing to the gospel it propagated—*that when Irish goods are equal in quality and value to those made elsewhere it is the duty of the Irish people to support the home product*—the home demand for Irish-made paper has grown by leaps and bounds. One of the best testimonies to this fact is that of late years a number of papermakers elsewhere have attempted to mislead the public by applying Irish titles and designs to their non-Irish products, and legal and other action has been taken by the Irish Industrial Development Association (Incorporated) to put a stop to this extensive and mischievous practice. Another proof is that several of the existing Irish mills, finding their trade increasing so satisfactorily, within the past fifteen years, were encouraged to extend their plant and machinery.

Owing to the shortage of external supplies the paper-making industry experienced an abnormal demand for its products during the period of the war. Consequently Irish mills had no difficulty in disposing of their output during those years, but the shortage of raw materials prevented them from employing as many hands as in pre-war days. Before the war practically all raw materials for paper-making were imported, but difficulty in procuring sufficient quantities during the war years led to the establishment of a new trade in Ireland, or at any rate to the considerable enlargement of a previously obscure trade, *namely*, that of dealing in waste books, papers, and magazines. The price paid for these was sufficient to tempt thousands of persons to collect and dispose of them in this way. Whether or not this trade will continue, once the ordinary supplies become plentiful again, is a point upon which we decline to express any opinion.

One of the difficulties that hinders the establishment of new and extensive development of existing Irish paper mills is that paper-making machinery costs a very considerable amount of money.

We are enabled, through the courtesy of the Irish paper makers, to state that the number of persons employed in the Irish paper-making industry at the present date is, approximately, 800.

Following are some *data* regarding paper mills operating in Ireland at the present day :—

The Swift Brook Mills at Saggart, Co. Dublin, owned by Messrs. John McDonnell & Co., Ltd., were established in the year 1795, on the site of their present *Lower*, or No. 2, Mill. The *Upper*, or No. 1, Mill was built in 1848. The classes of paper produced in these mills are: Banks, loans, bonds, account book, ledger, writing, typewriting, envelope, *Irish Vellum*, and printing papers.

The Newbrook Mill at Rathfarnham, Co. Dublin, owned by Messrs. S. Irwin & Son, was established about 1819. The classes of paper produced in this mill are: Common, medium, and superior (*Irish Rope*) qualities of brown paper.

The Drimnagh Paper Mill [1] at Inchicore, Co. Dublin, owned by Mr. George P. Fleming, was originally built about 300 years ago by Huguenot immigrants. At what date it was turned into a paper mill has not been definitely ascertained, but about the year 1700 it was presented, as a paper mill, to a Mr. Sullivan by the then Lord Lansdowne, and was worked by the Sullivan family up to 1890, when it was closed for about eighteen months and then re-opened. This mill now produces various qualities of brown wrapping papers.

The Ballyclare Mill as well as the Inver Mill at Larne, Co. Antrim, are both owned by the North of Ireland Paper Mill Co., Ltd. There is evidence that a paper mill existed in Ballyclare prior to 1834. It was taken over by the present Company about the year 1875, and for a number of years was chiefly engaged in producing news paper of various qualities. At the present day this mill produces super-calendered printings, cream laids and woves, azure laids, and bank papers. The Inver Mill, at Larne, produces poster, imitation vegetable parchment, cream and coloured casings, railway buffs, cover and manilla papers.

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[1] Since writing the foregoing an extensive fire occurred at this mill, on February 14, 1920, which destroyed the main building and most of the plant and machinery.

The Clondalkin (Co. Dublin) Mills, owned by the Irish Paper Mills Co., Ltd., produce the following classes of paper, viz.: News, tram-ticket paper, manillas, and printing papers.

Since writing the foregoing the Killeen Paper Mill, at Inchicore, Co. Dublin, which had lain idle for a number of years past, has been acquired by Mr. J. O. Tools, and is now producing brown papers.

2. THE PRINTING AND ALLIED INDUSTRIES

"THE PHRASE 'PRINTED MATTER' IS ONE OF THE MOST COMMON IN DUBLIN PARLANCE. IF YOU ARE A SENTIMENTAL TRAVELLER, AND GO ABOUT THIS CITY ASKING QUESTIONS AND SEEKING INFORMATION, YOU WILL FIND THAT NEARLY EVERY ONE YOU MEET HAS 'PRINTED MATTER' WHICH HE BEGS YOU TO TAKE AWAY WITH YOU AND READ AT YOUR LEISURE. AN EXTRA PORTMANTEAU IS ADVISABLE."—HAROLD BEGBIE: *The Lady Next Door.*

Whatever other Irish industries have declined, one cannot truthfully assert that that of printing has suffered. From the earliest records of the printing-press up to the present day this industry has received its due share of Irish support. It has always moved with the times, and the invention of improved printing machines has been the signal for their adoption in this country. This, in turn, has lead to the cheapening of printed matter of various kinds, to a consequent increased demand for such work, and to a considerable increase in the number of hands employed in the industry. To-day, one need not go outside of Ireland to procure the best possible work in any branch of the printing trade. As a matter of fact, Irish firms are able, in open competition, to secure orders from other countries for work of the highest kind known to the printing and bookbinding trades.

The following *data* extracted from the Census of Production Returns, 1907, throw some light on the dimensions of this industry. The total number of persons employed in connexion with printing and bookbinding factories and workshops in Ireland in 1907 was returned as 6,598, made up as follows: Wage Earners, 3,346 males and 2,459 females; Salaried Persons, 622 males, and 171 females.

The value of the output was returned as follows:

BOOK PRODUCTION (PRINTING, BINDING, ETC.

	£
Printed Books	42,000
Account and Blank Books	47,000
Printing of Newspapers	28,000
Printing of Magazines and other Periodicals	10,000
"Job" and General Printing	302,000
Lithographic and Photo-Lithographic Printing	159,000
BOOKBINDING.	
Printed Books	24,000
Account and Blank Books	31,000
Bookbinding not separately distinguished	7,000
Machine Ruling	11,000
Relief Stamping	2,000
Manufactured Stationery	5,000
Paper Bags	4,000
Waste Products	3,000
Other Products	1,000
Amount received for work done for the trade (Gold Blocking, Box-making, etc.	12,000
Other work done	126,000
Total Value of Output	£697,000
Cost of Materials used, etc.	254,000
Net Value of Output	£443,000

NEWSPAPERS

The total number of persons employed in factories engaged in the printing and publishing of newspapers and other periodicals was returned in 1907 as 2,900, made up as follows, viz.: Wage Earners, 1,975 males and 202 females; Salaried Persons, 650 males and 73 females.

The value of the output of these factories was returned as follows:—

	£
Newspapers	328,000
Other then Daily (including Trade Journals)	124,000
Magazines and other Periodicals	10,000
"Job" and "General" Printing ..	80,000
Other work done (Bookbinding, Engraving, etc.)	5,000
Printing and Binding of Printed Books ..	2,000
Manufactured Stationery	17,000
Waste Products	2,000
Total Value of Output	£568,000
Cost of Materials used, etc.	167,000
Net Value of Output	£401,000

MANUFACTURED STATIONERY FACTORIES AND WORKSHOPS

The total number of persons employed in this industry, in the year 1907, was returned as 799, made up as follows, viz.: Wage Earners, 160 males and 544 females; Salaried Persons, 63 males and 32 females.

The value of the output was :—

	£
Manufactured Stationery of Paper or Cardboard, not separately distinguished (including notepaper, envelopes, account books, blank books, cards, cardboard boxes, paper bags, etc.) ..	53,000
Paper Bags	22,000
Cardboard Boxes, Ticket and Showcard Writing and Mounting, and Sundry Printing	4,000
Total Value of Output	£79,000
Cost of Materials used, etc.	45,000
Net Value of Output	£34,000

CARDBOARD BOX FACTORIES AND WORKSHOPS

The total number of persons employed in this industry in the year 1907 was returned as 930, made up as follows, viz. : Wage Earners, 170 males and 697 females ; Salaried Persons, 41 males and 22 females.

The value of the output that year was returned as follows :—

	£
Plain and Fancy Cardboard Boxes ..	70,000
Manufactured Stationery and Printing ..	3,000
Other Products	1,000
Total Value of Output	£74,000
Cost of Materials used	36,000
Net Value of Output	£38,000

The reader will notice that similar headings appear in more than one of the foregoing Returns. This is due to the fact that two or more branches of these industries perform a proportion of the same class of work. For example: cardboard-boxes are chiefly made in factories which confine themselves to this one branch, but these boxes are also made, to a small extent, by manufacturing stationers. So also with *job* and *general* printing. There are firms which specialize in this work, but a number of newspaper concerns, especially in country towns, also do an amount of such printing. Further, several printing-houses produce weekly newspapers and periodicals. Thus it will be seen that it is necessary to analyse all the Returns set forth in this section if the reader is to obtain a comprehensive insight into the full dimensions of these industries.

Although I am without definite *data* as to the changes that have taken place in the Irish printing and allied industries during the past thirteen years, I have good grounds for believing that these industries have developed to a satisfactory extent in the interim. Colour-printing, which is used so extensively in connexion with advertising matter, is a branch of the trade which has progressed considerably in this country in recent years, and the printing of books is increasing yearly.

CHAPTER VII

THE LEATHER GROUP

I. TANNING

LEATHER and whisky are two of the most important branches of manufacture in this country, considering the immense amount of labour which is employed in their production. So wrote John Francis Maguire in the year 1853. At that time there were sixteen tanneries at work in the city of Cork, some years earlier there had been forty. Tanneries were also operating in the following places in Ireland: Ballytore (Co. Kildare); Bandon (Co. Cork); Belfast; Carrickfergus (Co. Antrim); Clonmel (Co. Tipperary); Coleraine (Co. Derry); Downpatrick (Co. Down); Drogheda (Co. Louth); Dublin; Dunmanway (Co. Cork); Galway; Kilkenny; Limerick; Lisburn (Co. Antrim); Newry (Co. Down); New Ross (Co. Wexford); Richhill (Co. Armagh); Waterford and Wexford.

I shall briefly trace some of the causes that, combined, led to the decline of this previously important Irish industry. The first of these was the famine of 1846–48, which not alone exterminated a large section of the Irish people and caused extensive emigration from these shores,[1] but left those who remained in Ireland in such an abject state of poverty that articles such as footwear became a luxury not to be indulged in by the masses of the people. Consequently the Irish tanner was deprived, for the time being, of the main outlet for his manufactures—Irish banks were then only in their youth and they withheld the necessary accommodation to enable him to tide over this crisis. About the same time newer methods of tanning were introduced into other countries. The Irish method required that the material should remain in the pits for from nine to twelve months—all the time absorbing expensive liquid and locking up capital. The new method occupied a far briefer period, required less capital, and enabled the tanner to give his customers not alone a less expensive article but longer credit. The Irish method produced a vastly superior article, so far as its quality was concerned, but the price of the rapid-tanned leather appealed to the attenuated purses of the populace. Almost concurrently with the introduction of lower-priced leather the manufacture in England of factory-made boots and shoes grew extensively. The produce of these factories was not long in finding its way into Ireland, and a further reduction in the demand for Irish-tanned leather resulted, the Irish maker of hand-made boots having been the chief user of the latter leather. He, too, since those years, has lost ground, and his chief occupation to-day is the repairing, not making, of boots and shoes.

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[1] From 1846 to 1851, one million and a quarter of the population "emigrated," and in the next nine years they were followed, thanks to the same causes, by another million and a half. During the same period 373,000 families were evicted from their holdings to provide room for a handful of graziers." Professor R. M. Henry: *The Evolution of Sinn Fein*, p. 22.

It is obvious from the foregoing statements that two things might have saved the Irish tanning industry, but neither of them were adopted in time. They were: Firstly, that our tanners should have moved with the times, pocketed their pride in the superiority of their leather and produced the kinds of leather for which there was a popular demand; and, secondly, the introduction of the factory system of boot manufacture into Ireland should have taken place without the years of delay that occurred. One further reason which, I think, had much to do with the decline of the Irish tanning industry in modern times was summed up by an eminent Irish writer who, writing in the year 1853, in referring to the tanners of that period said: (They) *being in many cases tanners by accident, and usually gentlemen by profession, and knowing just that the skin of animals and the infusion of bark make leather, but considering the process by which it is made to be the peculiar domain of the workman.*

We shall now pass on to the recent position of this industry, which offers a more pleasing perspective. The Census of Production Returns, 1907, gave the total number of persons employed in the industry in that year as 193.

The Value of the Output was returned as	£71,000
Cost of Materials used	46,000
Net Value of Output	£25,000

Since then there has been a pronounced improvement, several Irish firms having largely increased their plant and adopted up-to-date methods of tanning hides and skins. To-day there are three Irish tanneries whose chief output is sole-leather, whilst these and eight others also produce harness leather. Generally speaking, the hides used are Irish, and the product, so far as harness leather is concerned, is made up into harness in Ireland. A large proportion of the sole leather is exported. Very little upper leather is tanned in Ireland, but one Irish firm specializes in tanning book binding leather. The chief credit for having developed this Irish industry in recent years is due to Messrs. E. O'Callaghan & Sons, Ltd., of the City Tannery, Limerick, who are now by far the largest tanners of hides and skins in this country, and who have displayed commendable enterprise in keeping abreast of the times and in consistently extending their output. An enterprising and public-spirited gentleman in the city of Cork (Mr. R. H. Beamish) has recently purchased the old-established tannery which was carried on for so many years by members of the Dunn family and, at the time of writing, is, I understand, converting it into a thoroughly up-to-date concern. This gives promise of a re-birth of the industry in Cork, which for generations was the principal centre of the Irish tanning industry. The existing Irish tanneries, according to a reliable estimate, employ nearly 500 hands. They are situated in Ballytore (Co. Kildare); Belfast; Clonmel (Co. Tipperary); Cork; Dublin; Dunmanway (Co. Cork); Limerick (2); New Ross (Co. Wexford); Richhill (Co. Armagh); and Thomastown (Co. Kilkenny) (2).

2. SADDLERY; HARNESS; AND CART-GEAR INDUSTRY

The Census of Production Returns, 1907, gave the number of persons employed in this industry in Ireland as 505, viz., 489 males and 16 females.

The Total Value of the Output was	£53,000
Cost of Materials used	24,000
Net Value of Output	£29,000

There are no reliable *data* obtainable as to what, if any, progress has taken place in this industry in the intervening years.

3. THE BOOT AND SHOE INDUSTRY

Although Ireland was slow to adopt the manufacture of boots and shoes by means of machinery, fair progress has been made in this industry in recent years. Several well equipped factories have been established and have proved themselves to be profit-making concerns. In addition to the larger of these a number of minor ones are scattered throughout the country, and together they provide a continually increasing amount of employment. There are no later *data* available concerning this industry than those provided by the Census of Production Returns, 1907, which showed that the industry, at that date, gave employment to 2,113 workpeople, viz., 1,648 males and 465 females.

The Total Value of the Output was	£265,000
Cost of Materials used, etc.	148,000
Net Value of Output	£117,000

Since then additional factories have been established and several of the older ones have been extended. Consequently, it is obvious that this industry now gives employment to a larger number of hands and the value of its output must have increased considerably. The Irish manufacturers have wisely confined themselves to the manufacture of reliable boots and shoes; they have not attempted to produce goods made from leather substitutes, as is done by many cross-channel firms. This policy has earned a high reputation for their products and has enabled them to compete, with the most satisfactory results, in the home market against their outside competitors. That there is still room in Ireland for a vast extension of this industry is illustrated by the following Return of the quantity and value of boots and shoes *imported* into Ireland during the years 1904–18 :—

TABLE OF IMPORTS OF BOOTS AND SHOES.

Year.	Quantity Cwts.	Value £.
1904	136,526	1,447,176
1905	140,447	1,544,917
1906	149,673	1,696,294
1907	147,079	1,728,178
1908	151,160	1,750,937
1909	156,841	1,791,908
1910	165,291	1,884,317
1911	155,185	1,734,192
1912	166,842	1,714,302
1913	158,485	1,673,998
1914	166,838	1,806,021
1915	156,219	1,796,519
1916	159,322	1,982,231
1917	130,150	2,039,017
1918	153,286	3,663,535

Most of the boots and shoes imported into Ireland are for women's and children's wear, and are, generally speaking, what may be termed of a more *stylish* pattern than those produced in this country. So far Irish manufacturers have confined the greater part of their output to men's boots and shoes and to the less stylish patterns of women's and children's. There exists a splendid opening in Ireland for a boot factory properly equipped and with the requisite expert staff necessary to produce the highest class of boots and shoes. Such an industry, provided it supplied goods equal in quality and price to those imported, would be certain of securing a decided preference for its products from Irish customers, it would find Irish workpeople easy to train, and it should not be long before it would earn a satisfactory dividend.

At the present day Irish boot and shoe factories are situated in the following amongst other districts, namely: Belfast, Carlow, Cork, Dublin, Dundalk, Enniscorthy, Galway, Killarney, Kilkelly (Co. Mayo), Lisburn (Co. Antrim), Londonderry, Longford, Portadown, Sligo, and Waterford.

CHAPTER VIII

THE TOBACCO INDUSTRIES

I. TOBACCO MANUFACTURES

THE Irish tobacco industry consists of two sections: (1) the manufacture from imported leaf (and to a comparatively small extent from Irish-grown leaf) of cigars, cigarettes, and pipe-tobacco; and (2) the growing of tobacco. About seventeen factories are engaged in the first mentioned section of this industry; four of them may be described as fairly large concerns, whilst one of the four—that owned by Messrs. Gallagher, Ltd., of Belfast—is one of the largest tobacco factories in the world. The remaining thirteen, whilst varying in size and in the number of workpeople they employ, only rank as comparatively small concerns.

For nearly twenty years past this Irish industry has had to meet the competition of one of the most powerful combines in Great Britain—(The Imperial Tobacco Company of Great Britain and Ireland, Limited)—a combination of most of the largest and best-known tobacco producers in Great Britain, with an *issued* capital of £15,647,000. Such an organization as this must naturally prove a formidable competitor, and this fact largely explains why the Irish firms have been unable to increase their output to a greater extent in recent years.

There are no *data* available to show the amount of Irish manufactured tobacco produced or consumed in Ireland, but the following return shows the dimensions of one section of this industry.

STATEMENT SHOWING THE TOTAL QUANTITY AND ESTIMATED VALUE OF TOBACCO, MANUFACTURED AND UNMANUFACTURED, EXPORTED FROM IRELAND IN EACH OF THE YEARS 1904 TO 1918.

Year.	MANUFACTURED.		UNMANUFACTURED.	
	Quantity lbs.	Value £.	Quantity lbs.	Value £.
1904	4,554,726	302,462	888,216[1]	24,574
1905	5,275,558	350,330	1,499,496[1]	40,299
1906	5,810,447	385,850	1,193,046[1]	31,964
1907	6,152,943	384,559	1,136,593[1]	35,376
1908	6,451,888	403,243	1,768,513[1]	57,403
1909	7,292,891	455,806	1,799,756[1]	54,703
1910	7,550,598	471,912	723,652	22,624
1911	7,744,710	484,044	902,069	30,539
1912	8,208,810	513,051	705,414	26,453
1913	8,098,378	506,149	772,488	31,962
1914	8,295,537	518,471	811,633	32,973
1915	8,922,810	557,676	1,278,990	34,639
1916	8,739,248	873,925	1,461,699	48,723
1917	8,600,939	1,075,117	1,767,961	132,597
1918	7,670,169	1,214,443	1,612,072	124,264

It is interesting to contrast the figures of our Imports of these commodities with those of our exports, and the following table will enable the reader to do so :—

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[1] Tobacco Stalks and *Waste* under Unmanufactured Tobacco prior to 1910.

STATEMENT SHOWING THE TOTAL QUANTITY AND ESTIMATED VALUE OF TOBACCO, MANUFACTURED AND UNMANUFACTURED, IMPORTED INTO IRELAND IN EACH OF THE YEARS 1904 TO 1918.

Year	MANUFACTURED.		UNMANUFACTURED.	
	Quantity lbs.	Value £.	Quantity lbs.	Value £.
1904	2,260,541	291,987	14,296,934	395,549
1905	2,250,002	290,625	9,943,307	267,226
1906	2,577,884	332,977	13,097,789	350,912
1907	2,057,708	265,787	10,622,771	330,634
1908	3,079,524	397,772	11,374,445	369,196
1909	2,860,284	369,453	12,977,483	378,510
1910	3,189,312	411,953	14,183,918	443,247
1911	3,155,712	407,613	13,931,626	348,291
1912	4,031,496	520,735	15,884,015	430,192
1913	4,687,116	605,419	9,234,752	230,869
1914	5,346,348	690,750	12,980,192	365,068
1915	4,649,064	600,504	19,136,878	518,290
1916	4,759,944	614,826	12,263,370	408,779
1917	5,349,960	869,369	4,466,198	334,965
1918	3,957,660	808,022	11,391,669	878,108

The principal Irish tobacco factories are situated in Belfast (2), Dublin (4), and Dundalk (Co. Louth); whilst others are situated in Bagnalstown (Co. Carlow), Cork (2), Dungarvan (Co. Waterford), Limerick (4), Londonderry, and Waterford.

The chief output of most of the Irish factories is pipe-tobacco; several of them also produce large quantities of cigarettes, and cigars form a small proportion of the output of a few of these concerns. At one time snuff-making was a profitable side-line, but this trade, although still carried on by some of the firms, no longer ranks as an important branch of the industry.

2. IRISH-GROWN TOBACCO

The first tobacco reputed to have been grown in Europe was that which Sir Walter Raleigh is credited with having planted in his garden at Youghal, Co. Cork. In the early part of the nineteenth century this plant was extensively cultivated throughout the country, but an Act of the British Parliament, passed in 1830, prohibited the cultivation of tobacco in Ireland, and from that year to 1907 this one-time profitable industry ceased to exist in the land. In 1907 an Act repealing all the statutes prohibiting the cultivation of tobacco in Ireland was passed, experiments upon a small scale having proved that tobacco of good quality could be produced here. These experiments were commenced in 1898 by Col. Sir Nugent T. Everard, Bart., at Randlestown, in the County of Meath—by special licence from the Chancellor of the Exchequer—and were continued, under the supervision of the Department of Agriculture and Technical Instruction for Ireland, from the year 1900 for the three subsequent years—tobacco being planted in practically all parts of Ireland with successful results.

In 1903 the then Chancellor of the Exchequer (Mr. Austin Chamberlain), having been approached by Sir John Butcher, M.P., and the late Captain William Redmond, M.P., decided to give the experiment full scope, and allowed a rebate of one-third of the duty upon all tobacco sold. Under considerable difficulties Sir Nugent Everard cropped an area of twenty acres with tobacco; the result, which was considered to be most successful, being mainly due to the kind assistance of Professor Harpor, of Kentucky Agricultural College, who personally superintended the harvesting and curing operations. In the following year a co-operative tobacco-growing society was formed in Wexford, whilst the Earl of Dunraven, at Adare, the late Captain the Hon. Otway Cuffe, at Kilkenny, and other enterprising landowners helped to extend the industry, and the produce was sold to manufacturers at a remunerative price.

In 1908 the then Chancellor of the Exchequer (Mr. Lloyd George) converted the preference of one shilling per lb. into an annual subsidy of £50 per acre; this was subsequently, in 1913, reduced to £25 per acre and limited to the so-called *experimenters*—Lord Dunraven and Sir Nugent Everard.

The scheme, which was approved finally by the Development Commission, provided that the experimenters should erect at their own cost a rehandling tobacco factory equipped with the most up-to-date machinery, and provide a certain number of growers (the greater number of whom were to be small farmers) with the necessary instruction, curing barns, etc., for the crop. They were also required to provide a cash market for the growers' tobacco at a price fixed, by a Liverpool tobacco broker, on the basis of American leaf. The experiment was limited to an area of 114 acres at each centre, although the capacity of each rehandling factory was equal to, at least, 1,000 acres.

The greatly increased cost of labour and the competition of other crops (for which the State guaranteed a minimum price) made tobacco-growing a somewhat speculative undertaking for the past few years, but the preferential duty on Imperial tobacco included in the Finance Act of 1919, equivalent to a rebate of 1s. 6d. per lb., makes the prospect of a large profit on Irish-grown tobacco almost certain. The Industry now only awaits development by adequately capitalized companies to become a source of great wealth to the country and of employment to many thousands of men and women workers and children of both sexes. At the time of writing a scheme is on foot to organize this industry on a large scale, and if it is proceeded with there is reason to anticipate a very considerable development in the course of the next few years in the growing of this crop in Ireland.

For a number of years past Sir Nugent Everard has conducted a factory in Dublin, under the title of The Irish Tobacco Co., Ltd., where pipe-tobacco, as well as several well-known brands of cigarettes and cigars, are manufactured from Irish-grown leaf. Lord Dunraven, also, has conducted a similar factory at Adare, Co. Limerick, at which cigarettes are made from Irish-grown leaf, and the products of both these factories have acquired a high reputation. ,

Appendix IV (see pp. 300–302) contains a series of Tables showing the acreage under this crop, from year to year since the date of the revival of the industry, as well as other interesting information concerning this crop. I desire to record my indebtedness to Mr. G. N. Keller, the Department's Tobacco Expert, who specially compiled these Tables for the purpose of this volume.

3. THE TOBACCO-PIPE INDUSTRY

The origin of the Irish clay tobacco-pipe industry dates back to many years anterior to the period covered by the present volume. At one time it was the means of giving employment to a considerable number of workpeople, but of late years it has fallen upon bad days, owing to the demand for this class of pipe having become extremely limited. Dublin, Cork, and a few other districts in Ireland, still possess small clay-pipe industries, but the total number of persons employed in them is insignificant as compared with that which obtained a generation or two earlier. However, although this must be ranked as one of Ireland's declining industries, it is satisfactory to be able to record the fact that the manufacture of briar tobacco pipes has been a rapidly increasing Irish industry for many years past. About forty-five years ago Mr. Charles Peterson, the inventor of the world-famous *Peterson Patent Pipe*, commenced manufacturing briar-wood and meerschaum pipes in Dublin. At first the trade was confined to the making of special pipes for individual customers, but, ere long, the demand became so great that Mr. Kapp, of Grafton Street, Dublin, who had afforded the opportunity to Mr. Peterson of carrying on this work, decided to extend the trade, and in this way the foundations of the present extensive business of Messrs. Kapp & Peterson, Ltd., were laid. At the present day this Dublin industry gives employment to a considerable number of workpeople, both male and female, its pipes rank as the finest procurable, its factory is perfectly constructed and equipped, and its products are in world-wide demand. In fact, they are as well-known and appreciated in Great Britain, Canada, South Africa, and other countries abroad, as they are in the country of their origin, the major portion of the output of the factory being exported from Ireland.

CHAPTER IX

THE SOAP, CANDLE, AND FERTILIZER INDUSTRIES

I. SOAP AND CANDLE INDUSTRIES

THESE Irish industries had, undoubtedly, progressed to a fairly satisfactory extent from the middle of the nineteenth century up to some years ago, but there is no evidence to show that they are continuing to do so. Several Irish firms manufacture both soap and candles; whilst others confine their output to one, but not both of these products. Altogether there are about eighteen Irish firms in these industries and their works are situated in the following districts, namely: Belfast, Cork, Donoghmore (Co. Tyrone), Dublin, Limerick, and Londonderry.

These Irish industries have suffered severely in recent years owing to the competition of a combine in England which, being possessed of an *issued* capital of about £30,000,000, is able to control the markets for raw materials and, therefore, buy cheaper than the smaller Irish firms. Producing on such a gigantic scale as it does its cost of production is far less than that of Irish firms; consequently it is able to undercut these latter in their selling prices. Faced with these handicaps, a number of Irish soap and candle manufacturers have thrown in their lot with this combine and have become what is known as *Associated firms*; that is to say, they continue to manufacture in Ireland, but are a part of the English amalgamation, and are governed by the regulations laid down by the latter. Obviously, this is not a healthy state of affairs so far as Ireland is concerned. It means that, should the cross-channel combine decide at any time to close the Irish factories, they possess the power to do so. Further, such a control does away with the prospect of the controlled firms in Ireland developing an export trade. The table of Imports and Exports, which appears further on, throws a vivid light upon this side of the question.

According to the Census of Production Returns, 1907, the total value of the output of Irish soap and candle factories in that year was returned as £338,000, the cost of materials used amounted to £257,000, whilst the *net* value of the output was £81,000.

The total number of persons employed was returned as 573, made up as follows, viz.: Wage Earners, 382 males and 98 females; Salaried Persons, 89 males and 4 females.

The following Return shows the quantity of Soap and Candles *imported* into and *exported* from Ireland in the years 1904–18 :—

	IMPORTS.		EXPORTS.	
	Soap.	Candles.	Soap.	Candles.
Year.	Quantity Cwts.	Quantity Cwts.	Quantity Cwts.	Quantity Cwts.
1904	141,520	65,694	38,661	5,443
1905	134,178	60,661	39,080	5,287
1906	142,982	63,337	39,845	4,972
1907	141,645	67,102	29,406	5,568
1908	158,314	64,347	33,567	5,822
1909	174,709	68,973	36,028	4,850
1910	175,456	68,103	44,672	4,880
1911	192,114	74,266	42,045	4,196
1912	183,720	80,355	27,391	3,881
1913	207,235	74,973	22,655	3,630
1914	196,266	86,405	20,956	4,853
1915	204,328	84,787	21,690	7,141
1916	214,771	75,278	24,185	10,597
1917	192,862	63,602	35,769	22,768
1918	187,114	53,392	34,478	10,332

The total estimated value of the soap and candles *imported* into Ireland in the fifteen years mentioned above was £5,687,835, being an average of £379,189 *per annum*: and of the soap and candles *exported* from Ireland £934,506, being an average of £62,300 *per annum.*

2. THE FERTILIZER INDUSTRY

In view of the fact that Ireland's main industry is agriculture, it is but natural that she should possess a fairly extensive artificial manure industry. At the present day there are about twenty factories—large and small—engaged in the manufacture of fertilizers. They are situated in the following districts, viz.: Belfast, Cork, Donoghmore (Co. Tyrone), Drogheda (Co. Louth), Dublin, Galway, Londonderry, and Waterford.

No up-to-date *data* are available to show the present dimensions of this Industry, but the Census of Production, 1907, Returns, contained the following particulars as to the industry at that date, viz.: The total number of persons employed was given as 1,242, made up as follows: Wage Earners, 1,078 males and 57 females; Salaried Persons, 98 males and 9 females.

The Total Value of the Output was............	£549,000
Cost of Materials used	369,000
Net Value of Output	£180,000

There is no reason to doubt that the increase in tillage in Ireland during the past few years, and the more general application of fertilizers to the soil which has been practised in recent times, have enabled this Irish industry to increase its production since 1907, and if the actual facts were available it would probably be found that employment is given to a larger number of workpeople now than at that date. As well as supplying a big share of the home market, Irish fertilizer manufacturers have a satisfactory export trade. The kindred industries of cattle-foods, sheep-dips, etc., are fairly well established in Ireland, and are securing an increasing proportion of the Irish Trade.

CHAPTER X

MISCELLANEOUS INDUSTRIES

A CONSIDERABLE number of other industries exist in Ireland besides those referred to in the preceding pages. Some of these give employment to a satisfactory number of persons, whilst others, though not employing many workpeople, are valuable industrial units in the economic life of the country.

I. FOOD GROUP

About half-a-dozen factories in the South of Ireland produce Condensed Milk. Some idea of the size of this industry can be gleaned from the fact that in the years 1917–18 Ireland's imports and exports of this commodity were as follows :—

	IMPORTS.		EXPORTS.	
Year.	Quantity Cwts.	Value £.	Quantity Cwts.	Value £.
1917	36,966	133,078	237,278	854,201
1918	68,829	289,082	269,914	1,204,437

Bee-keeping is an industry which is extending in Ireland and is receiving a good deal of expert attention. The home market consumes the greater amount of the Irish product, but the following additional quantities of honey were exported from Ireland in the years 1913–18 :—

EXPORT OF HONEY.

Year.	Quantity Cwts.	Value £.
1913	1,706	4,606
1914	1,855	4,869
1915	2,350	5,875
1916	1,051	4,204
1917	1,886	14,569
1918	2,785	25,993

The following, as well as other food-stuffs, are produced in Ireland, viz.: Confectionery, sweets, chocolates, jams, marmalades, jelly squares, preserved fruits, dessicated soups, and coffee preparations.

2. ART INDUSTRIES

There has been a satisfactory revival in Irish Art Industries for some years past. Several of these have performed valuable work by keeping alive and extending the fame of Irish arts and crafts. The fame of the Irish worker in gold and silver dates back to early times, and has continued through the centuries up to our own day. Few countries excel in beauty of design and perfection of execution articles produced by the leading Irish gold and silversmiths. Hand-made jewellery and enamel work are also designed and made by small groups of workers in various parts of Ireland. These articles, too, are of very high quality, and the makers find no difficulty in disposing of them both in Ireland and abroad. An Irish art industry which has moved into the front rank is that of stained-glass. Whilst several Irish works produce this article, the chief credit of having won a high reputation for Irish stained-glass is due to Miss Purser, of Dublin. The artists associated with this lady's industry have designed and executed stained-glass windows for numerous churches and other buildings, not alone in Ireland, but in many countries throughout Europe and in America. Miss Purser, when she established the Industry, aimed at affording Irish artists an opportunity of developing their art to the highest stage of perfection. The present writer is not qualified to express an expert opinion as to whether or not this stage has yet been reached, but qualified critics have bestowed unstinted praise upon the work executed by these artists. A later-comer into the community of Irish stained-glass artists is Mr. Harry Clarke, of Dublin, who, within recent years, has designed and executed a number of very beautiful stained-glass windows. The perfection of his work has placed him high amongst the leading European artists in this category. In another connexion, that of illustrator of famous stories, Mr. Clarke has won the plaudits of the critics and the appreciation of lovers of beautiful books. Another Irish art industry deserving of special mention is the Cuala Industry, conducted by the Misses Yeats at Dundrum, Co. Dublin, where the hand-printing of delightful editions of famous literature is carried on. Calendars, Christmas and other cards, are also designed and hand-printed at this industry, whilst another section devotes itself to the production of the highest quality art needlework, in original designs. This latter work, as well as the making of vestments, banners, regalia, hand-made lingerie of the finest quality, crochet, lace, and embroidery, are carried on in many other industries, convents, and private homes throughout Ireland. The Irish Decorative Art Association, in Belfast, produces a variety of artistic articles in metal and woodwork, whilst bookbinding of a kind unsurpassed elsewhere is executed by several Irish artists.

3. HOUSEHOLD REQUISITES

An endless number of articles, which may be grouped under the head of HOUSEHOLD REQUISITES, are made in Ireland. This group includes such items as: Basket-work, bedding, curled hair, mattresses, down quilts and other down goods, cushions, polishes and powders (boot, floor, furniture, knife, metal, and plate), starch, blue, brushes, brooms, cutlery, combs (in 1860 there were seventy-five master combmakers in Ireland, employing from ten to fifteen workpeople each; to-day there is only one—in Dublin—and the number of his workpeople is about twelve), curtains, tapestry, matches, and tinware. This latter industry had not progressed to any appreciable extent up to a few years ago, but an up-to-date factory established in Dublin at the end of 1916 has gone some distance towards catering on a large scale for the Irish market.

4. CHEMICAL GROUP

In what may be described as the CHEMICAL GROUP, Ireland has, in addition to those referred to elsewhere, a number of progressive industries. These include the manufacture of fine chemicals, drugs, paints, varnishes, distempers, enamels, inks, magnesia, disinfectants, as well as pharmaceutical and veterinary preparations.

5. MISCELLANEOUS

A few other Irish industries worthy of special mention are those of felt-roofing (which is made on a fairly considerable scale in this country), bell-founding (an Irish industry which has never lost its fame, and continues to produce peals of bells for other countries besides this), umbrellas and walking-sticks (which are made in the North and South of Ireland), china and pottery (the manufactures of the Belleek, Co. Fermanagh, Pottery Industry are well-known throughout several continents. This industry was recently acquired by a group of enterprising Irishmen who have planned to develop its resources and considerably extend the output of the famous *Belleek China*, as well as of ordinary household delph-ware), dolls and toys (made in a number of small industries throughout the country), galvanized and japanned goods (of many kinds, are made by two industries in Dublin), gloves (kid-gloves continue to be made on a small scale by one industry in Cork city, and knitted gloves are manufactured extensively in a number of Irish knitting industries), gold beater (the only surviving industry manufacturing this article is situated in Dublin ; its output is small, but the quality of its product is unsurpassed), rosary and other beads (three or four firms in Dublin manufacture these items and, in addition to a large home demand, quantities of their products are shipped abroad), oils (one firm in Dublin carries on the business of oil refining on a large scale, and its products are shipped to all parts of the world), organ building (this Irish industry is not now as extensive as it was a few decades ago, but the firms engaged in it have earned a deservedly high reputation for the excellence of their workmanship), waterproof goods (a number of firms in the North, South, and East of Ireland manufacture a variety of waterproof articles and oilskins. Several of them have well-equipped, up-to-date factories and produce large quantities of these articles).

The foregoing by no means exhausts the list of goods made in Ireland, but the reader, as well as Irish makers whose goods have not been mentioned, will realize the impossibility of my alluding to each item separately within the compass of a work such as this.

CHAPTER XI

GOVERNMENT CONTRACTS

WITH the object of giving the reader reliable information as to the volume of Government contractual work placed with Irish firms during the war years ((1914-18), I requested the various Authorities concerned to supply me with such *data*. Following is the information I have succeeded in procuring. It will be noted that several Government Departments who procure a proportion of their supplies in this country have failed to supply particulars. The chief reason for selecting the returns relating to the war years was, that during the greater part of that period practically all industrial materials were under Government control, and with rare exceptions were only allocated to firms engaged in producing goods for Government purposes. Further, that prior to the period in question the total amount of Government contracts placed with Irish firms was insignificant.

I. ADMIRALTY CONTRACTS

Following is a copy of a letter received from the Admiralty, together with a copy of the Statement which accompanied it :

ADMIRALTY, S.W. 1, *9th September*, 1919.

I am commanded by My Lords Commissioners of the Admiralty to acquaint you that they have given careful consideration to your letter of the 20th June last, in which, for the purpose of a handbook which you are writing on Irish industries, you ask that information may be sent you as to description, quantity, and value of contracts for general supplies placed directly by the Admiralty with Irish firms during the years 1914-1919, together with similar information as to contracts for building works in Ireland during the same period.

2. My Lords after some local enquiries are of opinion that the compilation of a list of contracts in the form suggested would be a very formidable task, and would entail a greater expenditure of labour on the part of the Department than they feel justified in sanctioning at the present time. They have, however, caused a brief statement of Admiralty contracts placed in Ireland during the war to be prepared, and a copy is enclosed herewith in the hope that, with this amount of information before you, you will, no doubt, with the assistance of any of the firms who are members of your organization or whom you might approach for more detailed particulars, be able to compile a statement which will fulfil your needs.

SHORT STATEMENT IN REGARD TO ADMIRALTY CONTRACTS IN IRELAND DURING THE WAR.

SHIPBUILDING :—A good deal of new construction work, including light cruisers, monitors, patrol oil-tanks, boom defence vessels, and sloops, was undertaken in the North of Ireland during the war.

SHIP-REPAIRS :—For repairs to vessels upwards of twenty Irish firms signed the agreement with the Admiralty for the undertaking of such work. The repairs were executed not only in Belfast, but at Queenstown, Londonderry, and other ports in Ireland.

BUILDING WORKS :—As regards building works on shore, although the programme of construction by the Admiralty in Ireland during the years 1914–1918 was not very extensive, certain works were constructed at naval bases and air stations in Ireland, and in most cases Irish contractors carried out all the work required by this Department, i.e., Buncrana, Killeagh, Wexford, Berehaven, and Whiddy Island.

ELECTRICAL WORK :—In connexion with electrical machinery and electrical installation, a certain number of Irish manufacturers have been engaged on Admiralty work.

FOOD STUFFS :—Fresh meat, flour, bread and vegetables were drawn by ships based on Irish ports from local firms under contract, and amounted to about, say : meat, 130,000 lbs., bread, 80,000 lbs. ; vegetables, 100,000 lbs., and flour 15 tons per month. Other victualling stores for those ships were supplied from the general Admiralty stocks, which are bought in bulk from the most suitable firms in the United Kingdom. Irish firms on the list are given equal facilities with any others for quoting for all supplies required. Irish firms secure practically all the orders for salt pork, and have also secured considerable orders for chocolate.

LINEN :—About half the number of firms on list are Irish, who secure orders invariably in competition for the large bulk of finer linens and damask. For the coarser linens (and canvas) the Irish firms, though invited to tender, do not compete so successfully, and the bulk of the orders go to Scotland. Owing to shortage of flax, it became necessary to substitute cotton and other fibres for flax as far as possible, but the Irish firms adapted their machinery accordingly. For linen aeroplane fabric, until lately purchased by the Admiralty, the orders were given to Irish firms. Purchase is now made by the Aeronautical Supplies Department and the large bulk still goes to Irish firms.

OTHER TEXTILES :—Since the war a number of Irish firms have been asked to quote, but with no appreciable success. The principal items are blankets and serge, but the Irish firms, who were furnished with samples and full particulars, were not able to satisfy requirements.

CORDAGE AND TWINES :—About fifty per cent of the total cordage purchased for the Navy is made in Ireland, and also a fair percentage of the twines.

CLOTHING :—Contracts exist at the different Irish ports for supplies to the Trawler Reserves, including hosiery, light clothing, (shirts, etc.), canvas and blue suits, boots, and oilskins. Irish clothing factories are invited to tender for making articles of uniform clothing in competition with firms in Great Britain. Exhaustive enquiries were made in August, 1915, on receipt of a report from the Ministry of Munitions, to see whether Irish firms could undertake supplies of boots, but no great success was achieved. Later, when urgent requirements of hosiery arose, enquiries were made through the officers of the Ministry of Munitions stationed at Dublin and Belfast as to the possibility of obtaining supplies from Ireland, but with little result, the class of goods manufactured being unsuitable for Naval requirements, which are better met from such centres as Leicester, Nottingham, and some districts of Scotland.

PERISCOPES FOR SUBMARINES :—The whole output of the Irish makers of these periscopes was bought by the Admiralty.

2. POST OFFICE CONTRACTS

The following is a copy of the reply received from the Post Office in response to the present writer's request for details of the contracts placed by that Department with Irish firms during the war years:—

General Post Office, Dublin,
19th September, 1919.

With reference to your letter of the 24th June, to which it is regretted it has not been practicable to send an earlier reply, I have to enclose lists[1] giving particulars of Post Office contracts with firms in Ireland during the financial years from April, 1914, to March, 1919.

The total value of the contracts placed annually was as follows:—

Year.	Total Value.
	£
1914–15	12,700
1915–16	6,900
1916–17	22,100
1917–18	40,750
1918–19	18,130

It should be explained that the totals for the years 1914-15, 1915-16, and 1918-9 do not include any contract for tailoring, the supplies required during the two former years being drawn under the three-year contract placed in 1913, and those required in 1918-19 being drawn under a contract placed during the financial year 1917-18, while the totals for the years 1916-17 and 1917-18 include contracts for tailoring.

In the case of all contracts under which the Department supplies material (cloth, etc.), the value furnished is the gross value inclusive of the materials.

On October 25, 1919, the Secretary to the General Post Office, Dublin, supplied the following additional information:

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[1] The lists which accompanied this letter contain only the following particulars, viz.: (1) Dates of contracts; (2) names and addresses of contractors, and (3) description of articles contracted for. As they do not contain any detailed information concerning the quantity and value of the contracts placed, they are not of sufficient general interest to justify reproducing them herein.

With reference to your further letter of the 24th ult., I have to inform you that the total value of the material supplied to contractors by the Department in each of the years mentioned was as follows :—

Year.	Value.
	£
1914–15	Nil
1915–16	Nil
1916–17	12,402
1917–18	27,045
1918–19	135

The foregoing figures include the value of some materials purchased in Ireland, but it is not possible to give their value separately.

3. H.M. STATIONERY OFFICE CONTRACTS

I am indebted to Mr. H. E. Pitman, Superintendent, H.M. Stationery Office, Dublin, for the following Return showing the sums paid by the Department to Irish firms for the undermentioned supplies in each of the years 1913–19 :—

Year.	Printing.	Binding.	Paper[2].	Stores[3].	Total.
	£	£	£	£	£
1913–14	18,917	5,277	16,110	3,200	43,504
1914–15	18,718	6,419	16,180	3,780	45,097
1915–16	15,864	5,294	14,990	6,170	42,318
1916–17	12,394	3,801	25,120	6,050	47,365
1917–18	12,899	4,670	33,750	16,730	68,049
1918–19	113,099[1]	5,401	63,560	23,410	205,470

[1] "This increase was due to payments for Voters' Lists and Registers.

[2] and [3] The increases which occurred under these headings in the years 1916–19 were due mainly to war supplies and rises in the cost of materials."

Of the amounts paid for "Paper," sixty-five per cent is for paper made in Ireland. A large proportion of the remainder comes under the heading of "Envelopes" which are made in Ireland, and for which some of the paper is manufactured in Ireland.

Apart from string and rope, the quantity of "Stores" obtainable of Irish manufacture has been found to be small.

4. WAR OFFICE CONTRACTS

In addition to giving details of the contracts placed by the War Office Contracts Department with Irish firms during the war (see Appendix V, pp. 303-307) it is necessary that I should allude to a cognate subject which received a considerable amount of publicity in recent years, namely, the agitation to secure the establishment of a War Office Receiving and Testing Depot in Ireland. A full recital of the history of the subject would occupy far more space than I have at my command in the present volume. Therefore it must suffice if I merely outline the chief points concerning the matter.

Numerous unsuccessful attempts were made after 1854, when the War Office transferred the functions of their Irish Receiving Depot to Woolwich, to prevail upon them to re-establish the Depot in Ireland. In March, 1916, a deputation from the All-Ireland Munitions and Government Supplies Committee waited upon the Financial Secretary to the War Office and pressed upon him the necessity for conceding this claim, so that Irish firms desirous of undertaking War Office contracts should be given equal facilities to those enjoyed by firms in Great Britain. The interview failed to attain the deputation's object. In July, 1916, a second deputation from the Committee waited upon Lord Derby, then Under-Secretary of State for War, and placed their case before him. The result was no better than that obtained by the former deputation. (The Committee all this time were actively engaged at home in organizing plans for compelling the authorities to give way on this point.) On October 16, 1916, they sent a further deputation to London, this time to Mr. Lloyd George, then Secretary of State for War, and the case they made was so strong that that gentleman undertook to at once send an impartial investigator to Ireland to inquire into the matter. He sent Sir Maurice Levy, Bart., M.P. This gentleman came here, made a thorough study of the subject, and reported to Mr. Lloyd George on November 14, 1916. The following are excerpts from his report :—

On October 28th you expressed a desire that I should proceed at once to Ireland and report to you regarding the existing facilities in Ireland for contractors desirous of competing for War Office contracts, and also upon the possibility of making further use of the facilities in Ireland generally as far as meeting War Office requirements is concerned. Also to suggest any remedies or any alterations which I consider, after investigation, should be made with a view of making further use of the industrial and agricultural resources of Ireland for meeting War Office requirements.

Accordingly I went to Ireland on October 30 (1916).

I have visited Dublin, Belfast, Carlow, Kilkenny, and Waterford, where I have interviewed deputations from local authorities, representative deputations from many of the manufacturing districts, the All-Ireland Munitions and Government Supplies Committee, and individual manufacturers in most of the industries of Ireland. . . . I am of opinion that supplies in much larger quantities can be obtained from Ireland if the people can be interested in the requirements of the nation, and if the inborn sentiment that England only looks to Ireland when in need, and the feeling of mistrust and lack of confidence in Woolwich and Pimlico, can be dispelled from the minds of the Irish people, feelings which are strong in Dublin and the South. . . . Some manufacturers who have and have had contracts object to send their goods to London to be examined in consequence of alleged unfair treatment, and the heavy cost of carriage in case of rejection. They complain that in case of rejection very scanty information is given as to the reason for rejection. Delays occur before the rejected goods are returned, and frequently many weeks elapse between the despatch of their goods and their formal acceptance. . . . The opinion I have formed is that no substantial increase of manufactured goods can be expected from Ireland unless and until a depot for the reception of goods is established in Ireland, with a complete range of samples of all goods required by the War Office, which it is possible for Ireland to produce, under the control of a man of experience who can give assistance, guidance, and information to the manufacturers when desired. . . . At a conference in Belfast with the Northern Section of the Association of Woollen and Worsted Manufacturers, who were unanimous in their desire for a Receiving Depot in Ireland, they unanimously expressed the opinion that the depot ought to be in Dublin. Geographically, Dublin is, undoubtedly, the most convenient centre for the majority of manufacturers. Dublin, being the capital of Ireland, the seat of Government, and the Headquarters of the Irish Command, is naturally the city in which the Irish Depot should be. There are sites available in Dublin upon which a suitable building could be erected in a few weeks, there being very many building operatives out of employment at the present time.

Personally, I am of opinion that the establishment of a Depot as desired would probably do much to remove some of the discontent existing in Ireland, especially if placed under the control of a sympathetic business man who would take an interest in imparting information to the manufacturers. It would undoubtedly bring increased prosperity to Ireland by increasing her manufactures.

The conclusions I have formed are:

(1) That in the interests of the Empire it is desirable to encourage the stimulation and development of the manufacturing industries of Ireland.

(2) That much greater use can be made of the industrial resources of Ireland.

(3) That it is desirable to establish a Receiving Depot in Ireland.

(4) That such Depot should be in Dublin.

(5) That the responsible official should be British, and a business man.

(6) That the existing arrangements with the Linen Trade should not be disturbed except in the case of manufacturers who expressed a wish to deliver their goods at Dublin.

(Signed) MAURICE LEVY, *November* 14, 1916.[1]

Despite the advice tendered by this impartial Englishman, the War Office Authorities continued to do nothing. The Committee, however, increased the weight of their agitation in numerous effective ways, until, on January 28, 1918, the War Office succumbed to their pressure and notified them that they had taken premises in Dublin which would be utilized as a Receiving and Testing Depot and would be effectively equipped and staffed for this purpose.

The organization, when set up here, worked efficiently and proved of great value in assisting Irish firms in respect to War Office contractual work. Its functions were defined in the following communication forwarded to the All-Ireland Committee by the then Surveyor-General (the present Lord Inverforth.)

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[1] This Report was suppressed by the War Office until March 11, 1918.

War Office, Whitehall, S.W., *October* 7, 1918.

In reply to your letter of the 3rd inst., the official order to which you refer states that a Receipt and Inspection Depot has been formed in Dublin with a view to developing the manufacturing resources of Ireland for Army purposes, and to dealing rapidly and effectively with the examination and delivery of stores manufactured in Ireland, thereby reducing the difficulties of which Irish contractors have complained and brought to notice. It states further that in conformity with the instructions of and in direct communication with the Departments concerned, the organization will develop on economic lines the output of Irish industries in relation to the supply services, advise on the placing of contracts and superintendence for their fulfilment; will carry out storage and accounting functions and the superintendence of inspection ; and will report weekly on such matters of principle and policy relating to administration and the general and economical utilization of the industrial resources of Ireland as it may be of importance and interest to bring to notice.

Having, in the end, acted more fairly towards this country, and set up an organization which, in less than a year, demonstrated that, from the War Office point of view, it was a profitable undertaking, it was reasonable to expect that this Depot would be retained as a permanent institution. Nevertheless, under the pretext of economy, this profit-making organization was scrapped in August, 1919, and Irish firms who desire to obtain a share of War Office contracts are again faced with all the difficulties that prevailed before it came into being. If they wish to have it reinstated once more they must re-commence the heart-breaking agitation which they believed had been ended once and for all.

A Return showing the detailed and total value of the orders for various kinds of goods purchased by the War Office from Irish firms during the war years appears under Appendix V (see pp. 303–307). This Return was supplied to the present writer by the Ministry of Munitions on behalf of the War Office, and he desires to acknowledge his thanks to Lord Inverforth, Minister of Munitions, for having authorized the compiling of these statistics (as well as those of the Ministry of Munitions, published elsewhere in this volume) for the purpose of publication in this work.

5. MUNITIONS OF WAR

It was in the last week of July, 1914, that the Great World War commenced, and in the first week of August the British Parliament sanctioned Great Britain's entry into the arena. The shortage of munitions of war which existed at the time was a fact well-known to those in authority. Ere long it was found that the British Government were required not alone to provide enormous quantities of munitions of all kinds to meet the needs of their own army and navy, but also of those of the allied countries associated with them in this gigantic struggle. So unprecedented was the demand, and so urgent its nature, that the then existing machinery for meeting such requirements proved inadequate and a new Government organization, the Ministry of Munitions of War, was established in London for the purpose of co-ordinating the demands of the various departments interested and of organizing and extending the output of munitions. It was also empowered to purchase munitions wherever they were obtainable. Mr. Lloyd George was appointed as the first Minister of Munitions, and the Ministry commenced its operations in the year 1915.

At a time of crisis such as this one would, naturally, expect that every available source of supply would be made use of. Ireland is situated only a few hours' journey by sea from Great Britain. That fact should have lead the *business* men who were appointed to assist the Minister in his task of procuring munitions, speedily and in ever increasing quantity, to avail themselves of the potential sources of supply which Ireland possessed. What actually happened was, that orders were placed with every firm in Great Britain prepared to undertake such work—the vast majority of them were as inexperienced in the production of munitions as were Irish firms; national factories of gigantic dimensions were erected and equipped in England, Scotland, and Wales, some of them at considerable distances from populated centres—the workpeople having to be conveyed to and from the factories by special trains (at a time when railway traffic of every description was terribly congested); and representatives of the Ministry were despatched to and retained in the United States and Canada, organizing the production of various kinds of munitions of war in those countries. The time spent in conveying supplies across the Atlantic varied from seven days to a much larger number, according to the freedom from or presence of submarines; valuable cargoes of these vital supplies were frequently lost in transit; and, further, British gold or its equivalent in British-owned American securities had to be exchanged for such purchases, or American loans to Great Britain had to be negotiated to defray the cost of them.

Every available source from which the British Government could procure munitions was fully availed of with one exception, that exception was Ireland. The figures which we publish a little further on demonstrate the absolute accuracy of this statement, but before quoting them it is necessary to refer briefly to the efforts made by Irish firms to procure a share of this work. Numerous firms here in the early years of the war made strenuous efforts to persuade the Ministry to entrust them with contracts for the manufacture of shells and other Ministry requirements, but the response they received was to be told by officials that they *could as easily eat shells as manufacture them.* A Committee of the Dublin Chamber of Commerce was appointed, at the suggestion of the Minister, to prepare plans showing the possibility of Irish firms undertaking munition contracts. No sooner had they evolved a definite scheme on these lines than, without availing himself of their proposals, Mr. Lloyd George wrote them a very polite letter, stating that the Ministry intended opening Area offices of their own in Dublin and Belfast and that, whilst he was obliged to them for the trouble they had taken, he had no further use for their services. The Committee, very unwisely, as events proved, accepted their dismissal and dissolved. The Ministry opened an office in Dublin and another in Belfast, and shortly afterwards secured a site in the former City, where they erected a miniature factory for the manufacture of 18-pounder shell; in addition, they placed a few small—very small—orders for shells, component parts of shells, and wooden ammunition boxes with private firms in the southern area of Ireland.

This was the position of affairs up to the early part of 1916. At that time so strong was the feeling which existed in Ireland in this connexion—(firms here were prevented from carrying on their regular trades owing to the impossibility of procuring raw materials, etc., unless they were engaged on war contracts; thousands of skilled and unskilled Irish workpeople, male and female, were recruited by the Labour Exchanges for munition work in Great Britain, and, consequently, had to contribute to the expenses of the upkeep of two homes, one in this country and another in England)—that a body, thoroughly representative of more than three-fourths of Ireland, was established under the title of the All-Ireland Munitions and Government Supplies Committee, with its headquarters in Dublin. An influential deputation from this body waited on Mr. Lloyd George on March 10th, 1916, and insisted that as Ireland was contributing in like proportion to Great Britain to the cost of the war; that as it was obliged to conform to all British Government regulations appertaining to the restrictions placed upon ordinary trade and manufacture; and that, as it was competent to undertake, on an extensive scale, the manufacture of various kinds of munition work, provision should be made at once to enable it to do so. The result of the interview was that the Minister undertook to equip an addition to the Dublin National Shell Factory with machinery for the manufacture of 9.2 in. shell; to erect and equip a further national factory, adjoining, for the manufacture of fuzes; to establish a national factory in Waterford for the manufacture of cartridge cases, and another in Cork for the manufacture of 4.5 in. shell. Further, it was arranged that additional contracts should be placed with private firms in Ireland.

That was in March, 1916. The work of erecting the Irish national factories was begun without delay, but the time unnecessarily wasted in equipping and getting them into working order is evident from the following excerpt from a letter, dated October 11, 1917, received by the All-Ireland Committee from Mr. Winston Churchill (then Minister of Munitions): *It must be remembered that, except in the case of the 18-pounder shop at Dublin, the plants are only just reaching the producing stage*—(more than three years after the outbreak of war). The present writer in dealing with this subject on a former occasion[1] wrote: *The quality of the*

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[1] Studies: June, 1918, p. 310.

management and control of these factories, up to the latter part of 1917, *is exemplified by an extract from a report made to the All-Ireland Committee by two of the ablest, independent, manufacturing engineers in England, who inspected these factories in December,* 1917. *They reported as follows: The general appearance of all the national factories in Ireland was one of inefficiency.* (It is right to mention that up to that period no Irishman was in control of or manager of any of these factories). One other extract from the report of these experts is of general interest in regard to the question of After-War Trade, viz.: *We are unable to recommend any one unit (without material alterations and additions) as suitable to manufacture any commercial engineering article within our knowledge.*

At the end of 1917 a new Directorate was appointed to the Dublin Area Office. These gentlemen, one of whom was an experienced engineer, set to work to *clean up the mess* created by their predecessors. The first thing they did was to place a practical engineer in charge of each of the factories—a course the adoption of which the All-Ireland Committee had clamoured for, unsuccessfully, for a long time previously—more effective balancing of machinery was effected, the skilful production of the different shells, etc., was properly taught to the operatives, and system was introduced into the working of the factories. The following official statements demonstrate the improvement that had been effected ten months later.

DUBLIN NATIONAL SHELL FACTORY:—In the month of October, 1918, 28,671 eighteen-pounder shells were manufactured, out of which only 156 showed defects. The *gross* cost per shell, including suitable allowance for depreciation of plant, was 11s. 2½d., and as the contract price allowed by the Ministry of Munitions was 12s., a profit of 9½d. per shell was being made.

In October, 1918, the 9.2 inch shell department was just completing a re-organization of their machinery, necessary for the manufacture of a new type of tapered shell, and consequently the production for the month was small; however, out of 758 shells made only two were found to be defective.

DUBLIN NATIONAL FUSE FACTORY:—At the time of the Armistice the Dublin National Fuse Factory was engaged on the production of the 106 brass percussion fuse. During the month of October, 1918, the output of this type of fuse exceeded 60,000, the *net* cost per fuse, including depreciation, was 6s. 4½d., and as the contract price allowed by the Ministry of Munitions was 8s., a profit of 1s. 7½d. *per* fuse was being made.

It is worthy of mention that during April, 1918, while this factory was engaged on the production of the 103 cast-iron percussion fuse, 93,000 fuses were made during the month, at a cost of 2s. 7¼d. each, the contract price allowed by the Ministry of Munitions being 5s. *It is believed that this cost of* 2s. 7¼d. *is the cheapest cost of production obtained in the British Isles.*

In the case of the 103 cast-iron fuses, the cost of materials is a small proportion of the total cost, so that it is much easier to effect savings in the cost of manufacture than in the case of the 106 fuse, where the cost of materials is a much greater proportion of the total cost.

WATERFORD NATIONAL CARTRIDGE FACTORY :—At the time of the Armistice this factory was manufacturing eighteen-pounder brass cartridge cases at the rate of 25,000 per week ; the lowest cost of manufacture which had been attained was 7s. 6d. per case, including allowances for depreciation, while the contract price allowed by the Ministry of Munitions was 8s.

It should be pointed out that the work of manufacturing cartridge cases requires a considerable amount of heavy machinery, such as presses. As Waterford is remote from any engineering centre, being one hundred miles from any machine shop containing large machine tools, the Waterford National Cartridge Factory had to depend on its own resources entirely for getting the plant in good working order, and on certain occasions when heavy repairs were required these were successfully carried out by the factory staff. Further, the work of manufacturing cartridge cases requires a continual supply of press and lathe tools. As the supply of these tools from England could not be depended upon they were manufactured entirely at the factory. The workpeople showed themselves capable of producing work to a very high degree of accuracy. Those who have been engaged in cartridge-case making will be interested to note that the *annular ring* difficulty was entirely overcome at Waterford.

GALWAY NATIONAL SHELL FACTORY :—The Galway National Shell Factory, which was producing eighteen-pounder shell, was quite a small factory, there being only eighty-four persons employed, and the output of eighteen-pounder shell at the time of the Armistice was about 800 per week. It is a very difficult matter to work so small a factory as this economically on the production of eighteen-pounder shell. At the time mentioned the cost of manufacturing eighteen-pounder shell was 12s. 7½d., as against the contract price allowed by the Ministry of Munitions of 12s. Plans had been formulated to increase the output at this factory to about 2,000 shell per week. This would have been an economical output and would undoubtedly have resulted in a very marked reduction in cost.

CORK NATIONAL SHELL FACTORY :—This factory was engaged in the production of 4.5 inch shell. The number of operatives was about 120, and the average weekly output of shell, in October, 1918, was 565. As in the case of Galway, the Cork factory was too small to form an economical unit, but it was being steadily worked up to an economical capacity at the time of the Armistice.

The following Return shows the quantity and value of the *deliveries* made by the National Munition Factories in Ireland from their inception up to March 7, 1919 :—

Name of Factory.	Description.	Quantity Passed Inspection.	Value (at Standard Price).
			£
Dublin National Shell Factory ..	18-pounder and 9.2″ shells	518,541	569,951
Dublin National Fuse Factory ..	Shell Fuses A.G.S. Bolts	310,234 187,281	96,192 2,029
Waterford National Cartridge Factory	Cartridge cases.	246,637	99,604
Cork National Shell Factory ..	4.5″ H.E. Shell.	29,325	44,067
Galway National Shell Factory ..	18-pounder H.E. Shell.	30,713	19,453
		TOTAL VALUE	£631,296

The *total number* of persons employed in the above factories on the date of the signing of the Armistice, viz., November 11, 1918, was 2,148, made up as follows :—

National Factory.	Males.	Females.	Total.
Dublin Shell Factories	278	531	809
Dublin Fuse Factory	123	434	557
Waterford Cartridge Factory	262	257	519
Cork Shell Factory	34	114	148
Galway Shell Factory	25	90	115
TOTALS	722	1,426	2,148

The establishment of a National Shell Factory at Galway in 1917 was the outcome of a persistent agitation carried on by the All-Ireland Committee and brought to finality at a Conference between members of the Committee and Mr. E. S. Montague, M.P. (then Minister of Munitions), in October, 1916, when the Committee's Chairman—Mr. John O'Neill—successfully advocated this claim in what an English K.C., who was present at the interview, described as *the most perfect example of concentrated pleading he had ever listened to.*

A typical illustration of the point of view of the Ministry's officials in regard to the placing of contracts for munition work with Irish firms is contained in the following excerpt from a Report of a deputation from the All-Ireland Munitions Committee which waited on the Chiefs of the Ministry's Box Department, in London, in 1918. The Report stated:

> We were immediately told, without equivocation, that they did not care if they never got any more boxes from Ireland, and that they were being pressed by English contractors, particularly by those in the Liverpool district, to place more orders with them and stop the import of boxes; that what they wanted from us was timber for caseboards, either dried or undried, they did not mind which, and that they would get all the manufacture carried out in England. They seem to consider that any work already given us is rather in the light of charity than a right to which we are entitled, remembering that we bear our full share of taxation with the rest of the Kingdom.

It cost, approximately, £350 to convert £100's worth of round timber into ammunition boxes. Consequently, the reader will be able to appreciate the loss sustained by Irish labour through being deprived of a fair share of this work.

The production of shells and component parts of shells, as well as other metal munition work, executed by Irish *private* firms, was, admittedly, equal to the best produced elsewhere. Despite this fact, the efforts made by these firms to persuade the Ministry to place extensive contracts with them were fruitless.

The following particulars represent the total quantity and value of goods made in Ireland under contract with the Ministry of Munitions by *private* firms situated in the No. 10, or Southern Area, and delivered to the Ministry's stores up to March 7, 1919:—

Description.	Quantity Passed Inspection.	Value, £
Boxes (wood and tin)	3,267,785	869,295
Shells	648,150	561,471
Gains	2,418,168	112,350
Adapters	808,150	35,101
Plugs (Fuse Hole)	406,427	28,234
Fuses	52,983	24,377
Screwed Rings (for exploder Containers)	160,022	5,885
Nose Bushes (Brass), for shell	7,556	1,227
Hammers for Fuse No. 106 ..	5,626	135
Pistol Bombs	40,000	6,500
Turnbuckles	29,071	4,563
	TOTAL VALUE	£1,649,138

The present writer requested the Ministry to supply him with a complete Return showing the quantity, description, and value of goods supplied from Ireland to the order of the Ministry. In the middle of September, 1919, he received a return, a copy of which follows, together with a covering letter, which stated:

> It is regretted that, owing to the demobilization of the area organization of the Ministry in Ireland, it is impossible to supply a complete and detailed return, certain large contracts for aeroplanes, etc., placed in the Belfast area having been omitted.

OFFICIAL RETURN OF THE VALUE OF GOODS, ETC., SUPPLIED FROM IRELAND TO THE ORDER OF THE MINISTRY OF MUNITIONS.

BELFAST AREA.		DUBLIN AREA.		
Description of Supplies.	Firms. Value £.	Firms. Value £.	National factories Value £.	Total Value £.
Shells and Components (including packages)	939,900	1,672,726	662,458	3,275,084
Trench Warfare Supplies	*	6,500	—	6,500
Linen Fabric	—	—	—	11,380,468[1]
Other Aeronautical Supplies	*	6,604	2,081	8,685
Building Plant, Machinery etc.	*	81,659	—	81,659
TOTALS: £	939,900	1,767,489	664,539	14,752,396

The foregoing return shows that the total value of the work executed in the Dublin Area [2] for the Ministry from the date of its inception up to September, 1919, amounted to less than two and a half million pounds sterling; of this amount £1,685,830 was the value of the production of private firms; £664,539 being the value of the goods produced in the five, so-called, national factories established in Ireland, and £81,659 being expended on buildings, plant, etc. The total

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* "The figures given for the Belfast Area do not include the value of certain of the contracts for aircraft and trench warfare supplies, machinery and miscellaneous supplies. Complete information under these heads is not available, owing to the closing of the ministry branches in the area."

[1] "The great majority of the contracts for linen were executed with firms in the Belfast Area."

[2] The Dublin Area extended from Drogheda, in Co. Louth, to Tralee, in Co. Kerry, and from Wexford to Sligo.

expenditure of the Ministry of Munitions for general supplies up to March 31, 1918, according to the Auditor-General's Report, was £1,101,230,693. To comment on these figures would be to doubt the intelligence of my readers, therefore I shall let the figures speak for themselves.

During the three years of its existence the All-Ireland Munitions and Government Supplies Committee—an absolutely non-political body—had to keep up a persistent agitation to secure even the few crumbs of munition work that reached Ireland; they had to send deputations to London almost every few months for this purpose; they were never consulted by the Ministry as to the best steps to adopt to equip the Irish national factories so as to procure satisfactory results from them; nor were they given any authority or control in respect of those concerns—(in Great Britain many of the national factories were controlled by similar organizations); from beginning to end every possible obstacle was put in the way of the extension of munition work in the Dublin area, and the officials in London invariably looked upon the Committee's activities with an air of hostility. Even when the plant and machinery of the Irish national factories were no longer required for war-work the offers made by Irish firms to purchase them—in some cases to carry on the factories as going concerns, in others to utilize the bulk of the machinery in engineering works in Ireland—were rejected and the plant and machinery were sold piece-meal by public auction, most of it going to the other side of the channel. At least one useful result emerged from this series of disappointing incidents. It was this, that the eyes of Irish business-men were fully opened to the hopelessness of their expecting to receive anything like fair-play from English Government officials—high or low.

It would be unjust to close this chapter without bearing testimony to the work of Mr. John O'Neill, the Chairman of the All-Ireland Munitions and Government Supplies Committee. This gentleman, whose own business occupied a great amount of his attention, was unsparing in giving time, thought, and energy to the affairs of the Committee. He it was who chiefly guided its actions, and to him and his remarkable clear-mindedness and power of foresight is due the main share of whatever success accrued as a result of the Committee's activities.

CHAPTER XII

TRANSIT

THE trade and industry of a country deprived of satisfactory transit facilities must languish; if the restraint be prolonged a sufficient length of time the competition of more favoured rivals will complete the work of trade and industrial extermination. These truths are so axiomatic that one hesitates to state them ; yet, when we search for evidence of their realization by Irish traders and industrialists the result is disappointing.

Commissions of Inquiry have sat in Ireland from time to time, and investigated the subject of our existing and potential transit resources ; they have issued reports, usually recommending much needed reforms, but there the matter has ended. Little or no sustained effort has been made by Irish industrialists and traders, as a whole, to secure that these recommendations shall be acted upon, and the authorities, taking advantage of this *inertia*, have allowed Ireland's transit resources to remain undeveloped. Concurrent with this arrested progress in Ireland, a vast expansion of transit resources, with its concomitant development of trade and industry, has been proceeding in many other countries. Whilst Ireland's trade has remained relatively stationary theirs has forced ahead.

The present world-shortage of food-stuffs and of almost all kinds of commodities in general use is inclined to dull one's vision regarding prospective trade competition. The situation may be summed-up in the words of a manufacturer, who recently stated that he had asked his travellers to go and play golf, not to seek for orders, as his output was already bespoke for some time ahead. This is a pleasant position for a manufacturer to find himself placed in, and would be an ideal position for him if it could be counted upon to continue indefinitely. But it is obvious that eventually the conditions under which the world has laboured during the past six years must pass away; the balance of production will right itself, and there will then arise a keener and more exacting competition to supply the requirements of the world's markets than, perhaps, at any earlier period in history. The nations that are first to organize their trade so as to be prepared to meet this competition stand the best chance of reaping the harvest. The cost of production of goods will be the prime factor in the struggle, and this cannot reach a competitive point in Ireland unless transit facilities are considerably improved and extended and the present rates of carriage of goods are reduced. If the Irish commercial community fails to exert itself to prevent the handicapping of its future trade by the imposition of excessive transit rates, and the absence or reduction of necessary transit facilities, the consequences in the course of the next few years must prove more serious than is at present realized.

Moderate progress has taken place in Ireland in the past forty years so far as the extension of railway facilities are concerned; the facilities derivable from the utilization of our extensive internal waterways has been to a large extent stultified owing to causes which we shall deal with more fully a little later; further, Ireland in pre-war days was supplied with a fairly satisfactory cross-channel shipping service, but she labours under the heavy handicap of not having sufficient direct shipping communication with countries further abroad. The following brief description of each of these factors may assist the reader to obtain some idea of how Ireland stands in respect to transit facilities.

I. RAILWAYS

The first railway constructed in Ireland was the line from Dublin to Kingstown (six miles in length), which commenced to operate in 1834. This was followed, in 1839, by a section of the Ulster Railway; the next being the Dublin and Drogheda Railway, opened in 1844 (both of the latter lines are now merged in the Great Northern Railway Coy.'s system). By 1851 the following lines had been established, *namely*: Sections of the Great Southern and Western Railway Company, the Midland Great Western, Midland (Northern Counties Committee), the Belfast and County Down, and the Cork, Bandon, and South Coast Railway Companies. To-day the principal Irish railway companies are: The Great Southern and Western Company, whose main line extends from Dublin to Queenstown, and which, altogether, administers a service covering a mileage of about 1,500 miles. The Great Northern Company's main line extends from Dublin to Belfast, and the total mileage operated is about 800 miles. The Midland Great Western Coy.'s main line extends from Dublin to Galway, and the total mileage operated is about 800 miles. Some of the smaller undertakings are the Belfast and Northern Counties line (owned by the Midland Railway Coy. of England), with a mileage of 364 miles. The Dublin and South-Eastern Company's main line extends from Dublin to Waterford, and the mileage operated is about 220 miles. The Cork, Bandon, and South Coast Company's main line extends from Cork City to Baltimore (Co. Cork), and the total mileage operated by this Company is about 100 miles.

There are about thirty Light Railways in Ireland operating a total mileage of a little over 600 miles. The majority of these are worked by the larger railway companies, whilst a few are worked by Committees of Management of County Councils. In most cases these lines have been unable to pay their way out of the revenues earned by them from the carriage of traffic, and resort has had to be made to the Baronial guarantees, under which the lines were constructed, to pay the dividends for which the companies are liable. The space at my disposal does not permit of my dealing with the history of the Light Railways of Ireland. I would refer the reader who is interested in this subject to the valuable account of the creation and working of these lines which appears in the Final Report of the Viceregal Commission on Irish Railways, 1906, pp. 49–75 (Cd. 5247).

At the present day there are twenty-five working Railway Companies in Ireland operating a total of about 3,493 miles, of which about 2,722 miles are single line. The following comparative statement[1] for the *decennial* periods from 1882–

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[1] Extracted from an article contributed by Mr. Joseph Ingram (then Secretary, Irish Railway Clearing House, now Director of Finance and Statistics, Irish Branch Ministry of Transport) to the Jubilee No. of the *Railway News*, 1914.

1912[1] shows, at a glance, the progress which Irish railways had made in that period :

	1882.	1892.	1902.	1912.
Length of line open for traffic. Miles	2,465	2,895	3,215	3,403
Total No. of passengers carried (exclusive of season ticket-holders) No.	18,723,988	22,647,010	28,210,468	29,162,404
Weight of goods and minerals conveyed. Tons	3,837,856	4,321,459	5,273,622	6,701,881
Total paid-up capital (exclusive of nominal additions). £	34,962,665	38,298,521	40,244,012	45,133,187
Gross receipts from all sources. £	2,810,876	3,177,751	[2]4,026,379	[2]4,545,372
Working expenses. £	1,542,751	1,737,511	[2]2,445,509	[2]2,841,955
Net receipts. £	1,268,125	1,440,240	1,580,870	1,703,417
Percentage of net receipts to total paid-up capital	3.63	3.76	3.93	3.77
Percentage of working expenditure to gross receipts	55	55	61	63
Population of Ireland	5,101,018	4,633,808	4,434,551	4,384,710

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[1] The Government having taken over control of British and Irish railways during the war years, the usual Board of Trade returns have not been issued since 1913. Consequently, this statement cannot be brought up-to-date.

[2] Gross receipts and working expenses of hotels included.

Irish manufacturers have almost invariably found it difficult to persuade Irish Railway Companies to adjust their rates so as actively to encourage the development of Irish Industry. The policy adopted by the companies has been to fix rates of carriage at the highest figures which they believed the various classes of merchandise were capable of bearing. This resulted, in numerous cases, in Irish firms being unable to sell their goods competitively over a wide area, and in their being charged considerably more for the transit of certain classes of traffic from one point to another in Ireland than the proportions received by the Companies as their share of the through-rates on similar goods imported into this country from across-channel and carried to the same destinations.[1] Unquestionably the Companies could have done a great deal more than they have done to assist in the expansion of Irish industries.

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[1] " On the 29th June a deputation from the Irish Industrial Development Association met the managers of the Irish railways in conference at the Irish Railway Clearing House. The main objects of the deputation were (1) to ascertain what proportions Irish railways received out of through cross-channel rates, and (2) to urge the railway companies to assimilate their local rates with their shares of the corresponding through rates, with a view to placing the Irish trader on a footing of equality with the cross-channel trader in respect of charges for conveyance of goods on the Irish railways. According to the evidence of the secretary of the Association, the general manager of the Great Northern Railway, who was in the chair on that occasion, stated to the deputation that if the railway companies carried Irish goods between stations at the same charge as imported goods, they would soon be in the Bankruptcy Court. The witness for the Associated Railway Companies gave a different version of the chairman's statement, which, in his recollection, was to the effect that if all the Irish rates were based on the special low through rates, this would land the companies in bankruptcy. The chairman himself told us that the deputation had demanded such sweeping reductions in rates that, if complied with, the companies would soon be bankrupt. Whatever the precise words used on this occasion may have been, we think there is no room for doubt as to the substance either of the claim advanced by the deputation or of the chairman's reply. The cross-channel through rates being keenly competitive and the Irish local rates being, as a rule, non-competitive, it is reasonable to infer that the through rates are on lower, and the local rates on higher, scales of charges. When an Irish local rate on a higher scale and a cross-channel rate on a lower scale are combined to form the basis of a through rate, then an apportionment of such through rate, according to mileage, or on any analogous principle of division, would give the Irish company, as its share, a smaller sum than the amount of its own local rate. Further, inasmuch as

In the year 1873 an Act of Parliament came into force which required railway companies to keep at their stations books containing *every rate for the time being charged for the carriage of traffic*. This Act also created a Commission, consisting of three members, one of whom must be a lawyer, one a man familiar with railway questions, and none of whom should in

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the cross-channel through rate, by the shortest route between any two points, is applied to all other routes between the same points—irrespective of their length—it follows that the Irish share of the through rates by the longer routes would be much less than the company's local rate. Hence a proposal to reduce the local rates on conveyance of Irish goods to the level of the Irish share of the through rate on imported goods of the same description, would point to a loss of revenue which, in the judgment of Mr. Tatlow, would jeopardise dividends, or, in the opinion of Colonel Plews, would lead the Irish companies into bankruptcy.

"Numerous complaints to the same effect as those made by the deputation were brought before us, and we considered it desirable to give the railway companies an opportunity of informing us whether they accepted, in respect of certain imported commodities, a proportion of the through rates less than the local rates charged for such goods between the same points. We accordingly asked the Railway Committee, representing all the Associated railway companies, to furnish us with particulars of the model settlements which show each local rate forming part of a through rate. We also asked for the apportionment, between the companies concerned, of the amounts of certain existing through rates for a number of selected commodities fairly typical of traffic between Ireland and England via Dublin, and via Cork. The Committee declined, however, to give this information, on the ground that they were not at liberty to disclose matters which were the exclusive concern of the companies and which, in their opinion, did not affect the rates paid by the public. We were told that the committee were unanimous in refusing to furnish the information, as individual companies objected to having the apportionment of rates made known to other companies in England and Ireland; the committee, moreover, thought that such particulars were not really necessary for the purpose of the inquiry. We regret that the Irish companies did not see their way to accede to our request, which was prompted by the wish to obtain information to enable us to estimate what part of the revenue of a unified railway system would be represented by reductions of internal and export rates, such as, in our judgment, might be required to promote 'the expansion of traffic upon the Irish lines and their full utilization for the development of the agricultural and industrial resources of Ireland.' We need only add that the refusal of the railway companies to supply the particulars asked for is calculated to strengthen and perpetuate the conviction that imported goods are carried over the railways at lower rates than are like commodities produced in the country."—Final Report, Viceregal Commission on Irish Railways, 1906, paragraphs 30, 31, pp. 10, 11.

any way be financially interested in railway or canal undertakings. The Commission had the power of a division of the High Court and its decisions were final on questions of fact. Its duties were to hear and determine complaints respecting the lack of reasonable facilities—as prescribed by law—and those having reference to allegations of undue preference. It was also empowered to arbitrate between the companies in cases of dispute, and adjudicate equally on matters of technical organization, as in the fixing and division of transport charges, in order to compel the various railway companies to co-operate in the establishment of through services.

The Railway and Canal Act of 1888[1] confirmed and extended the powers of the Commission and enforced on Canal Companies some of the obligations imposed on the railways, notably those which had reference to the publication of tariffs and the compilation of Returns. It gives to the Commission, so far as the canals under railway management are concerned, the right to require that the charges and tolls of any kind collected for the transport of goods on the canals shall be reasonable when compared with railway charges. The Act further requires companies to maintain a good state of navigation on canals belonging to them. A further Act (1894) provided that railway companies could be called upon to justify before the Railway Commission all increases of rates since December 31, 1892, even though such increases were within their statutory maxima.

Theoretically, the Railway Commission safeguards the interests of the trader. In practice, however, the latter has obtained very little benefit from this source. Its intervention, so far as Irish traders are concerned, has been availed of on only a very limited number of occasions. The reasons for this reluctance to invoke its aid are that the trader must be prepared to spend a considerable amount of money in conducting an action against a railway company; that the companies, on account of the highly-trained organizations they possess, are able to put forward a skilfully prepared defence which the ordinary trader often is unable to upset, owing to the limited *data* at his command; consequently, though the latter may have a genuine grievance against a railway company, he is not always able to present it in such a way as to obtain satisfaction; further, when a trader succeeds in his action and the company is, for instance, ordered to reduce the rate complained of, there is no guarantee that the company will not again raise it after a time, the trader thus being faced with the task and expense of conducting a further action before the Commission.

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[1] Section thirty-three requires the publication by every railway company, at every station at which merchandise is dealt with, of a notice that the rate books required by law *are open to public inspection, and that information as to any charge can be obtained on application to the secretary or other officer.*

The Department of Agriculture and Technical Instruction for Ireland is empowered to inquire into complaints of excessive railway rates and, if unable to obtain redress from the companies concerned, to institute proceedings within certain limits before the Railway Commission out of the funds at its disposal. The Department has intervened in this manner on a few occasions. In the opinion of the present writer the Railway Commission is far too costly and cumbersome a tribunal to be of use to traders in general. A simpler and less costly tribunal for dealing with complaints by traders against railway companies is needed and should be instituted.

At the time of writing the position in regard to the future of the British and Irish railways is somewhat uncertain. During the war, on January 1, 1917,[1] the Government took over control of the Irish Railways and appointed an Irish Railway Executive Committee to administer them. The Directors and staffs of the various companies continued to discharge their usual duties but were required to conform, in the operation of the railways, to whatever instructions were given to them by the Government through the local Railway Executive Committee. The terms of compensation upon which the Government took over control of railways were as follows:—

> The Regulations of the Forces Act, 1871, under which H.M. Government have taken possession of most of the railways of Great Britain, provides that full compensation shall be paid to the owners of the railways for any loss or injury that may have been sustained thereby, the amount of such compensation to be settled by agreement, or, if necessary, by arbitration.
>
> H.M. Government have agreed with the Railway Companies concerned that, subject to the undermentioned condition, the compensation to be paid them shall be the sum by which the

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[1] The Government took over control of British Railways on August 5, 1914.

aggregate net receipts of their railways for the period during which the Government are in possession of them fall short of the aggregate net receipts for the corresponding period of 1913. If, however, the net receipts of the companies for the first half of 1914 were less than the net receipts for the first half of 1913, the sum payable is to be reduced in the same proportion. This sum, together with the net receipts of the railway companies taken over, is to be distributed amongst those companies in proportion to the net receipts of each company during the period with which comparison is made.

The compensation to be paid under this arrangement will cover all special services, such as those in connexion with military and naval transport, rendered to the Government by the railway companies concerned, and it will therefore be unnecessary to make any payments in respect of such transport on the railways taken over.[1]

These terms were subsequently altered to the following extent, viz. :—

Under the original agreement the sum paid in compensation to the companies concerned was the sum by which the aggregate net receipts of their railways for the period during which the Government were in possession of them fell short of the aggregate net receipts for the corresponding period of 1913, subject, however, to a proportionate reduction if the net receipts of the companies for the first half of 1914 were less than the net receipts for the first half of 1913.

It has now been agreed that this reduction shall not in future be made, but that 25 per cent of the war bonus granted to railway employees who come within the Railway Conciliation Scheme shall be borne by the railway companies, and not by the Government.[2]

Since the termination of the war an agitation has been carried on by the railwaymen's and other trade unions to persuade the Government to permanently nationalize the railways of Great Britain and Ireland. So far the Government have refused to do so, but the position in respect to the cost of operating these lines has changed so radically in the past five years that the problem of their future management and control is one which bristles with difficulties.[3]

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[1] *Board of Trade Journal*, September 17, 1914, p. 749.

[2] *Board of Trade Journal*, April 22, 1915, pp. 223–4.

[3] The Ministry of Transport Act, 1919, continued the Government control of British and Irish railways for two years from August, 1919.

Rates of carriage had been increased several times between 1914 and 1919, whilst an increase of fifty *per cent.* had been added to passenger fares. Despite these increases the loss incurred in operating British and Irish railway services has increased so considerably under State Control that the companies would be unable at the moment to pay dividends to the shareholders were the State guarantee withdrawn.[1] The Government have set up a Committee to prepare a new scale of rates on a still higher scale and intend putting the new scale into force without delay. By this means they hope to secure a sufficient revenue to cover the cost of running the railways and to defray the dividend payable to the shareholders, thus leaving them free to withdraw the State subsidy.[2]

In pre-war days transit rates on Irish railways ranked higher than those of almost all other commercial nations.[3] Allowing for the fact that most of these foreign countries have been compelled to raise their rates to some extent in the interim, it is questionable if Irish trade will, when it reverts to a normal, competitive basis, be in a position to withstand the handicap of the additional imposts referred to without suffering very seriously thereby. It is obvious that to recover trade, whilst the first essential is increased production, vital factors are the cheapening of the cost of raw materials and the cost of marketing the finished products. Ireland is dependent upon outside countries for most of the raw materials required by her manufacturers, and her export trade represents the greater proportion of her total trade. Consequently, unless transit rates are in her favour the result must prove serious so far as the future development of her industries is concerned.

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[1] There was a loss of £3,763,953 on the working of controlled railways in Great Britain and Ireland in the month of December, 1919, and the net Government liability for the month amounted to £7,839,153.

[2] Since writing the above the Minister of Transport has directed the Railway Companies of Great Britain and Ireland to increase the tolls, rates, and charges published in their books in accordance with a new scale which came into force on January 15, 1920. The new scale makes additions of from about thirty to sixty per cent in the rates of carriage on certain classes of goods and a hundred per cent increase on small parcels and returned empties.—See *Board of Trade Journal*, January 1, 1920, pp. 31–32.

[3] "The fact remains that, judging by the evidence placed at our disposal, both the internal rates of the foreign countries for which comparisons were taken, and also their export rates for produce shipped to British markets, are relatively lower than the corresponding Irish rates."—Viceregal Commission on Irish Railways, 1906, Final Report, paragraph 75, p. 32.

Reference to the recently appointed Ministry of Transport, which is now the controlling authority in respect to transit services, will be found at the end of this chapter.

2. CANALS

A glance at a map of Ireland would inform the casual investigator that this country is well supplied with internal water-ways. A fuller study of the subject would, however, make him realize that the actual value of these waterways to the trading community is far less than he had imagined. Before referring to some of the causes which are responsible for their arrested development, I shall provide the reader with a short statement showing the extent of the internal waterways of Ireland.

Description.	Including.	Length.	
		Miles.	Chains.
Canals[1]	Lagan, Ulster, Coalisland (Tyrone Navigation), Strabane (Foyle Navigation), Grand, Newry, Ship, Royal, and Ballinamore and Ballyconnell (derelict)	430	53
Inland[2] Navigation	Lower Bann, Boyne, Corrib, Newry and Shannon	268	72
Waterways without locks[3]	Upper Bann, Lough Erne, Rivers Maigue, Suir, Blackwater (Cork) and Bride	137	57
	GRAND TOTAL	837	22

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[1] Including all artificially constructed waterways.

[2] Including waterways formed by the canalization of rivers.

[3] Some of which are arms of the sea leading to inland points and used as inland waterways.

Of the foregoing, 165 miles 49 chains are owned or controlled by the State, 212 miles 6 chains by Local Authorities or Trusts, 335 miles 58 chains by independent Companies, 95 miles 69 chains (the Royal Canal) by the Midland Great Western Railway Company, and 25 miles (the tidal rivers Blackwater and Bride) are under no direct control. The Royal Canal, which extends from Dublin to Richmond Harbour, in Co. Longford, and runs almost parallel with the Midland Great Western Railway line from Dublin to Mullingar, in Co. Westmeath, cost £1,421,900 to construct. Since the Railway Company obtained control of it, in 1846, traffic has decreased, until to-day the canal has almost ceased to be used for the conveyance of merchandise.

The Irish Canal Authorities do not publish traffic returns, as do the Railway companies, therefore it is impossible for us to supply up-to-date information upon this subject, but some idea of the amount of traffic carried on their systems may be formed from a return supplied by a certain number of these Authorities to a Royal Commission which inquired into this question in the year 1906. This return applies only to 594 miles 56 chains [1] out of the total 837 miles 22 chains of inland waterways in Ireland.

Year.	Tonnage Conveyed.
1888	865,346
1898	1,052,000
1905	1,069,929

At the present day several Irish canals lie wholly or partly derelict, whilst others are insufficiently dredged and do not receive the attention necessary to make them really serviceable factors in the economic life of the country. The canal authorities, general speaking, have displayed a total lack of enterprise in encouraging trade on these *routes*, and the belief exists that some of them have entered into arrangements with the neighbouring railway companies whereby the latter guarantee them against loss in the event of their refraining from competing against the railway companies for the carriage of traffic. This, of course, results in traders having to pay higher rates than would obtain were the canal services conducted on independent, competitive lines. What is needed to make these services really effective and valuable to the community is that they should be placed under the control of an absolutely impartial and representative body; that this body should have no other interest in them beyond that of ensuring that they are kept in proper order at all times, and that the canals should be free, as are the seas, for the plying of private-owned boats, subject, of course, to necessary conditions. In short, that they should become well-kept, public waterways. It remains to be seen whether or not the Ministry of Transport will take effective steps to abolish the existing condition of affairs in this connexion, and to provide the Irish public with a really up-to-date internal waterways service.

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[1] This includes the following waterways: Grand, Lagan, Newry Ship, Newry Navigation, Ulster, Boyne, Coalisland, Strabane, Shannon, Maigue and Royal.

3. SHIPPING

The modern history of the Irish shipping trade is not an enlivening story. When one considers that, geographically, Ireland is perfectly situated in respect to several of the world's principal trade *routes;* that few countries possess finer harbours; and that she stands in the forefront of shipbuilding nations, it seems almost incredible that she should occupy so insignificant a space in the picture of the world's shipping trade.

From the year 1825, when the British and Irish Customs were amalgamated, until the year 1904 no systematic records were kept of the total import and export trade of this country. But since the latter mentioned year such records have been compiled by the Department of Agriculture and Technical Instruction for Ireland. Consequently, it is not possible to give the reader reliable *data* as to Ireland's shipping trade in the earlier period referred to. The figures of the registered tonnage of vessels which arrived at and departed from our ports during those years is an unreliable guide to the country's trade, for the reasons that many of these vessels merely discharged or loaded part cargoes, whilst others arrived or departed with more or less than the amount of their registered tonnage. Therefore, I have no hesitation in discarding this method of calculation, and shall confine my comparisons to the *data* relating to the years 1904–18, for which years we have what approximate to definite returns of the trade in imports and exports at Irish ports.

TOTAL IRISH IMPORT AND EXPORT TRADE.

Values expressed to the nearest thousand pounds.

	IMPORTS.		EXPORTS.		EXCESS OF IMPORTS OVER EXPORTS.	
Year.	Value at prices in the year of importation.	Value at 1904 prices.	Value at prices in the year of exportation.	Value at 1904 prices.	Value at prices in the year of shipment.	Value at 1904 prices.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
1904	55,345	55,345	49,785	49,785	5,560	5,560
1905	57,009	57,095	51,393	50,833	5,616	6,262
1906	58,794	57,523	56,005	53,415	2,789	4,108
1907	63,022	59,075	59,160	54,492	3,862	4,583
1908	60,190	56,829	57,415	53,702	2,775	3,127
1909	65,155	59,486	60,929	54,762	4,226	4,724
1910	66,431	59,624	65,896	56,968	535	2,656
1911	67,610	60,322	65,071	56,330	2,539	3,992
1912	73,953	63,221	67,168	56,710	6,785	6,511
1913	74,467	62,986	73,877	60,567	590	2,419
1914	73,995	61,176	77,311	63,243	3,316[1]	2,067[1]
1915	87,950	59,790	84,463	58,372	3,487	1,418
1916	104,517	56,588	107,171	58,848	2,654[1]	2,260[1]
1917	119,964	49,770	133,780	56,702	13,816[1]	6,932[1]
1918	126,018	44,168	152,903	50,611	26,885[1]	6,443[1]

It will be seen from the above table that although the total values of imports and exports measured at war prices increased enormously in the last few years the actual quantities imported and exported (as indicated by the values at 1904 prices) decreased considerably.

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[1] Value of exports greater than value of imports.

The volume of the import trade (measured at 1904 prices), which was £62,986,000 in 1913 (as compared with £55,345,000 in 1904), fell to £49,770,000 in 1917, and to £44,168,000 in 1918.

The value of the export trade (measured at 1904 prices), which increased from £49,785,000 in 1904 to £56,968,000 in 1910, remained at much the same level in 1911 and 1912 (in which years exports of cattle were abnormally low owing to the lack of keep in Great Britain in the very hot summer of 1911 and to shipping restrictions in 1912 on account of Foot and Mouth Disease). The volume of exports rose abruptly in 1913 and 1914 chiefly owing to abnormal exports of cattle in both years (in 1913 owing to the glut after the restrictions of 1912, and in 1914 owing to the extremely heavy demand in Great Britain in the first five war months). The exports in 1913 and 1914 were accordingly abnormally high. Most of the decline in the volume of export trade which can be attributed to the war took place in the year 1918. The exports at 1904 prices fell from £58,372,000, in 1915 to £56,702,000 in 1917, and then dropped to £50,611,000 in 1918.

The serious decrease during the last few years in the volume of imports and exports has some favourable aspects :

(1) The decrease in imports was made good to some extent by increased Irish production. For instance, the effect of the large decrease in the imports of maize and other feeding stuffs was largely counterbalanced by increased production of Irish substitutes (oats, potatoes, etc.), and the decrease in the imports of flax was to some extent made good by increased home production. The decrease in imports of bacon, butter, etc., resulted in a larger consumption and smaller export of the Irish article. In other directions, however, Irish substitutes were not available and the decreased importation (e.g., of sugar) led to a fully equivalent decrease in consumption.

(2) From 1915 to 1918, while the volume of imports fell by 26 per cent, the volume of exports fell only 13 per cent. In each year from 1904 to 1913 the volume of the imports (measured at 1904 prices) exceeded the exports, but in 1914, 1916, 1917, and 1918 the volume of the exports was greater than the imports. Whereas in 1904 the volume of the imports exceeded the exports by 11.2 per cent, in 1918 the exports (measured at 1904 prices) exceeded the imports by 14.6 per cent.

(3) While from 1904 to 1918 the prices of the commodities imported in 1918 increased by 185.3 per cent, the prices of the exports increased by 202.1 per cent.

The combined effect of the changes (2) and (3) has been to bring about a considerable change in the balance of trade. While the total value of the imports in 1904 exceeded the total value of the exports in that year by £5,560,000, or 11.2 per cent, the total value of the exports in 1918 (at 1918 prices) exceeded the value of the imports by £26,885,000 or 21.3 per cent.[1]

Following is a comparative table showing the separate classes of goods, *imported* into and *exported* from Ireland in the years 1916–18 :—

	Valued at Prices in the Year of Shipment.			Valued at 1904 Prices.		
	1916	1917	1918	1916	1917	1918
IMPORTS.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Farm Produce, Food and Drink	37	34	27	37	34	30
Raw Materials	17	18	17	16	16	15
Manufactured Goods	46	48	56	47	50	55
TOTAL	100	100	100	100	100	100
EXPORTS.						
Farm Produce, Food and Drink	58	54	51	58	55	56
Raw Materials	4	4	4	5	4	4
Manufactured Goods	38	42	45	37	41	40
TOTAL	100	100	100	100	100	100

It is not possible to ascertain the actual amount of the total trade carried on between Ireland and foreign countries, owing to the fact that the greater part of this trade passes to and from Irish ports *via* Great Britain and loses its identity *en route*. Records are kept of the *direct* trade between Ireland

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[1] Report on the Trade in Imports and Exports at Irish Ports during the year ended December 31, 1918. Cmd., 487.

and foreign countries, and we find that the direct imports of foreign goods into Ireland in the year 1918 amounted to a value of £15,031,537, whilst the direct exports amounted to £559,497.

If definite figures were obtainable it would be found that little, if any, increase has taken place in Ireland's direct trade with foreign countries during the past seventy years. To a certain extent this fact is ascribable to a lack of organization and co-operation on the part of Irish manufacturers and traders themselves. Had they joined forces, made a closer study of the needs of the world's markets, sought direct openings abroad for Irish goods (instead of being content to dispose of their commodities at lower prices to cross-channel middle-men), and organized collective direct shipments of their goods to foreign markets, there is little doubt but that they would have reaped a larger and more profitable harvest. Some Irish firms have, individually, secured markets abroad for their manufactures, but they have been too few to create a satisfactory direct shipping trade.

The fault of this sparsity of direct trade does not, however, rest with Irish manufacturers and traders alone. The more powerful trade and shipping interests in Great Britain have ever been jealous of Irish trade rivalry, and have consistently utilized every resource at their command to check its growth, whilst successive British Governments have lent their aid in repressing Irish efforts to build up foreign trade connexions. The most recent instances in proof of these contentions are: (1) The case of Irish importers of goods from the United States of America—through an English Oil Company—who were compelled by the English firm to pay Liverpool harbour, etc., dues, and freight charges from Liverpool to Dublin, although these goods were conveyed direct from New York to Dublin; and (2) the British Government recently permitted Irish cattle traders to export cattle to France on condition that these cattle were sent *via* a British port, not direct from Ireland to France. This latter instance is only one of many unnecessary restrictions enforced by the Government at the time of writing to prevent free trading in goods between this country and countries abroad.[1] What it really amounts to is this. That if Ireland has an exportable surplus of goods she is compelled, in very many instances, to dispose of this surplus to Great Britain—often at controlled prices which are fixed by the British Government—and any profits accruing from the subsequent export of these goods to foreign countries, after the goods reach Great Britain, go into the pockets of British traders.

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[1] The subject of Government restriction of Irish Trade is dealt with more fully in the concluding chapter of this book.

When war was declared in 1914, the Government took over control of all British and Irish-owned vessels ; they commandeered a considerable number for their own purposes ; transferred many more from their regular services to services elsewhere which, in their opinion, were of more immediate national importance, and, generally, reduced the services which had existed in pre-war days. A further depletion of Irish tonnage was caused by the locking-up of several Irish-owned vessels which happened to be in German ports at the moment war was declared. Submarine warfare and mines also took their toll, and these several factors were responsible for materially reducing the Irish mercantile marine between the years 1914–19. It has not been found possible to obtain official figures of the loss and diversion of Irish shipping, through these causes, during the war years, but this is known to have been very considerable. During these years the output of merchant vessels from British and Irish shipyards was unable to keep pace with the tonnage lost ; and I have not been able to trace that a single steamer launched during that period was handed over to the Irish merchant service.

The following Table illustrates the growth of Irish shipping since the year 1850 up to 1916, the latest year for which the figures are available at the time of writing.

A variety of causes have combined to keep freight and passenger rates at a much higher figure than obtained in pre-war years. Since the year 1913 the cost of new and second-hand ships has risen by 400 per cent, repairs by 339 per cent, wages by 130 per cent, labour from 115 per cent to 150 per cent, and cargo-handling from 150 per cent to 200 per cent. Foodstuffs, stores, dock and canal dues, and all equipment items have risen correspondingly, whilst the cost of British bunker coal has risen from 600 per cent to 700 per cent, and at the time of writing insufficient quantities are available even at this enormously increased price.[1]

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[1] The figures quoted in this connexion have been extracted from the Annual Report (1919–20) of the Chamber of Shipping of the United Kingdom.

TABLE SHOWING THE NUMBER AND NET TONNAGE (GROSS ALSO, IF AVAILABLE) OF SAILING AND STEAM VESSELS REGISTERED UNDER PART I. OF THE MERCHANT SHIPPING ACT, 1894, WHICH BELONGED TO IRELAND ON 31ST DECEMBER OF THE YEARS STATED.

Year	SAILING VESSELS.			STEAM VESSELS.		
	Number of Vessels.	Tonnage.		Number of Vessels.	Tonnage.	
		Gross.	Net.		Gross.	Net.
1850	2,249[1]	—	261,432	—	—	—
1860	2,103	—	211,585	168	—	41,751
1870	1,651	—	170,800	193	—	46,581
1880	1,403	—	172,439	255	—	60,198
1890	903	135,406	127,113	267	210,165	113,178
1900	602	74,188	67,893	357	368,603	194,475
1910	487	40,655	36,696	423	596,525	323,157
1916[2]	390	32,930	29,812	509	686,736	395,201

These factors, plus the continued control by the Government of certain shipping facilities (direction, coupled with limitation rates, in respect to wheat from Canada, Australia, U.S.A., and the Plate ; maize from the Plate, sugar from Cuba, British West Indies, and Mauritius, timber from Canada, and coastwise coal in the United Kingdom), the abnormal demand upon shipping resulting from the depleted stocks of necessary articles, raw materials, etc., throughout the world, and the vast number of passengers (troops and civilians) that have had to be conveyed to or from Europe, have given a strong impetus to the amalgamation of British steamship undertakings. Many of the largest and best known British steamship companies have been absorbed by, or have absorbed, other undertakings.

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[1] Includes sailing and steam.

[2] It was subsequent to the year 1916 that most of the destruction of Irish vessels by submarine and mines took place.

Those in Ireland who foresaw the evil effects that must result from any further depletion of Irish-owned shipping had hoped that the property of the comparatively few independent Irish steamship companies would escape the attention of these wealthy combines; but, ere long, the Irish companies, one after another, received offers for the acquisition of their share capital, offers which proved irresistible in most cases, and, consequently, almost every Irish steamship company parted with its vessels and other property during the past two years. Most of these undertakings have been acquired by the British and Irish Steam Packet Company Limited,[1] which company had a paid-up capital of £1,000,000, in ordinary shares of £1 each, and in March, 1920, offered to the public a further issue of 1,500,000 Participating Preference Shares of £1 each. At that date the Company had acquired the fleet and property—exclusive of the Kingstown-Holyhead Mail Boats and service—of the City of Dublin Steam Packet Company, and certain steamers and property previously owned by Messrs. Tedcastle, McCormick & Co., Ltd., of Dublin. They had also acquired the major part of the share capital of the following companies: The City of Cork Steam Packet Company Limited, The Belfast Steam Ship Company Limited, and the Belfast and Manchester Steam Ship Company Limited.

In the year 1913 the City of Dublin Company owned a fleet of 8 steamers, of a *gross* tonnage of 8,682 tons—exclusive of the 4 mail boats[2] plying between Kingstown and Holyhead, the *gross* tonnage of which was 10,764 tons—the Tedcastle Line owned 6 vessels, of a *gross* tonnage of 4,451 tons, the City of Cork Company owned 9 vessels, of a *gross* tonnage of 10,398 tons, the Belfast Steam Ship Company owned 7 vessels, of a *gross* tonnage of 10,859 tons, whilst the British and Irish Steam Packet Company themselves owned a fleet of 6 vessels, of a *gross* tonnage of 8,368 tons.

The one satisfactory feature in this connexion is that three of the five present directors of the British and Irish

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[1] It is understood that this Company is associated with some of the most powerful shipping interests in England and is largely controlled by a number of the principal British steamship companies connected with ocean services.

[2] Two of these boats were destroyed during the period of the war and have not, at the time of writing, been replaced.

Company are Irishmen of high standing, viz.: Lord Pirrie, Mr. George N. Jacob, and Captain A. R. S. Nutting.

In addition to the companies mentioned, other Irish shipping undertakings have passed out of Irish hands, the principal ones being the Ulster Steam Ship Company Limited, with a fleet of 13 steamers, the *gross* tonnage of which was 84,450 tons, and the Cork Steam Ship Company Limited, with a fleet of 12 vessels, the *gross* tonnage of which was 31,404 tons

In pre-war years Ireland's share of the world's shipping trade was infinitesimal in comparison to her potential resources; to-day, when every country throughout the world is striving to increase its trade and industry, Ireland finds herself less equipped in respect to the ownership of shipping facilities than in former years. It would be difficult to overestimate the significance of this retrogressive step. Whilst Ireland is unpossessed of a mercantile marine, Irish manufacturers and traders must pay additional freights and other charges on every article they import from or export to foreign countries; they must continue to be handicapped by the additional time occupied in the transit of these goods, through having to procure or despatch them *via* British ports; Ireland loses the direct profits which a mercantile marine would earn for her; and, further, her trade and industry is affected in numerous other ways through the absence of this all-important adjunct to trade development.

Being faced, at the moment, with the competition of powerful British shipping combines, and all that this portends, it is not to be expected that Irish capitalists could be persuaded to invest the large sums of money necessary to immediately establish a really effective Irish mercantile marine. Nevertheless there is no reason why a small beginning should not be made at once to increase the Irish shipping trade. If attention be given to the matter it will be found that small vessels, of the tramp class, are from time to time obtainable at reasonable prices; such vessels need never lie idle; freights, at profitable rates, are continually offering, and if a few keen Irish businessmen were to interest themselves in this matter, and invest their money in vessels of this type, they would find that the expense of working them would not prove excessive; that with efficient management good profits would be obtainable; and it should not be long before they would be in a position to add to the number of their fleet or purchase still larger vessels. There is nothing original about this suggestion. Numerous one-man, or small-group, undertakings of the kind have been in existence for ages past, even here in Ireland. Were the system considerably extended in this country, it would materially assist Irish trade and industry and in every way prove a valuable Irish asset.

During the past year a direct service of steamers has been operating between the United States of America and Ireland; occasional vessels from Spain bring cargoes of fruit direct to Irish ports, instead of, as heretofore, discharging them at British ports from whence they were transhipped to Ireland; the service between Antwerp and Dublin, which was suspended during the war, has re-commenced, and there is promise, in the near future, of further extensions of direct shipping between Ireland and other countries abroad.

Until Irish traders and manufacturers have an unlimited choice of the world's markets in which to buy and sell, and until they can get their goods to and from these markets in the shortest possible space of time, at the lowest possible cost of transport, they must continue to suffer from the various handicaps that retarded the expansion of Irish trade and industry in the past. With the more extensive and fiercer competition which is certain to be met with in ensuing years, these handicaps will prove increasingly severe as time goes on. Therefore, to prevent Irish industry from languishing, and to enable it to progress, it is essential that every effort should be made to organize and encourage direct shipping between Ireland and foreign countries.

4. MINISTRY OF TRANSPORT

Few Acts of Parliament, passed in times of peace, have placed in the hands of a single Government department such widespread powers as those which the Ministry of Transport Act, 1919, conferred upon the department set up to administer that Act. The Bill introduced, proposed giving to the Minister of Transport what practically amounted to plenary powers over everything in Great Britain and Ireland in any way connected with transit services. In its passage through

Parliament it met with an amount of fierce criticism and opposition, both inside and outside the House of Commons, with the result that the Government were compelled to amend many of its clauses, and, finally, it reached the Statute Book shorn of some, but by no means all, of its most objectionable features.

The Bill was passed *for the purpose of improving the means of, and the facilities for, locomotion and transport*, and it transferred to the Minister of Transport *all powers and duties of any Government Department* [1] *in relation to*

(*a*) Railways.
(*b*) Light Railways.
(*c*) Tramways.
(*d*) Canals, waterways, and inland navigations.
(*e*) Roads, bridges and ferries; vehicles and traffic thereon.
(*f*) Harbours, docks, and piers.

The Act continued Government control, for two years from its enactment, of all railroad undertakings of which possession had already been taken, and empowered the Minister, after giving not less than one month's notice in writing, to take possession of the whole or any part of any other statutory railway undertaking, light railway, tramway, canal or inland navigation, harbour, dock or pier, plant belonging to any such undertakings, and barges, tugs, and other craft owned or held by them.

The directors and other persons concerned with the management, and officers and servants of these undertakings, must obey the directions of the Minister as to rates, fares, tolls, dues, and charges to be charged; as to salaries, wages, and remuneration and conditions of employment; as to the working or discontinuance of the working of the undertakings; for securing that the permanent way, rolling stock, plant, appliances, or equipment are satisfactory in type and design; as to the carrying out of alterations, improvements, and additions which the Minister considers necessary; for securing co-operation between undertakings, and for securing the common user of facilities, rolling stock, and equipment;

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[1] The powers or duties of the Admiralty exerciseable in or in relation to ports declared under the Dockyard Port Regulation Act, 1865, to be dockyard ports; and the powers of the Board of Trade with respect to the appointment of members or the procedure of the Railway and Canal Commission are reserved to those departments.

for affording running powers over their systems to the owners of any other undertaking; for securing that manufacturing and repairing facilities and auxiliary and ancillary services shall be used, and the purchase and distribution of stores shall be conducted, in such manner as may be most conducive to economy and efficiency.

SECTION 3: (e), is a provision worthy of quoting in *extenso*. It reads as follows:—

> In the case of any undertaking of which possession is retained or taken by the Minister as aforesaid, any rates, fares, tolls, dues, and other charges directed by the Minister shall be deemed to be reasonable, and may, notwithstanding any agreement or statutory provisions limiting the amount of such charges or increases therein, be charged in respect of any undertaking during the period for which the Minister retains possession of such undertaking, and for a further period of eighteen months after the expiration of the said period, or until fresh provision shall be made by Parliament with regard to the amount of any such rates, fares, tolls, dues, and other charges, whichever shall first happen.

A saving clause of the Act, which was the outcome of the opposition already referred to, is also deserving of special mention. It reads as follows:—

> 4. Except where any harbour, dock or pier forms part of a railway undertaking, nothing in section three of this Act shall apply to any harbour, dock, or pier undertaking established by Act of Parliament, including the Manchester Ship Canal, or to the owners of any such undertaking, without the consent of such owners, but, if at any time during the two years after the passing of this Act, the Minister shall consider that it is desirable in the national interest that the transport facilities and accommodation at the harbour or at any dock or pier of the owners, should be improved or extended, or that the method of working should be altered, the Minister may, by order, for the purposes aforesaid, require the owners to execute or do, within a reasonable time, such improvement or extension or alteration in the method of working as the order may prescribe, and may, for that purpose, by order, confer on the owners any such powers of acquiring land or easements or constructing works as are mentioned in paragraph (*d*) of subsection (1) of that section; and the provisions of this Act relating to orders made under that paragraph shall apply to orders conferring such powers as aforesaid.
>
> Provided that, if the owners of such undertaking consider that any such requirements are likely to be seriously injurious to the

undertaking, or to the trade of the port, they may, within thirty days of receiving notice of such requirements from the Minister, appeal, in the case of an undertaking situate in England or Wales, to the Lord Chief Justice of England, or in the case of an undertaking situate in Scotland, to the Lord President of the Court of Session, or, in the case of an undertaking situate in Ireland, to the Lord Chief Justice of Ireland, and, if it appears to such Lord Chief Justice or Lord President that a *primâ facie* case is made out that the requirements of the Minister would be so injurious as aforesaid, he shall forthwith appoint an arbitrator to hold an immediate inquiry, and, if the arbitrator reports that the carrying out of the requirements of the Minister will be so injurious as aforesaid, the Minister shall revoke his requirements, without prejudice to the power of the Minister to issue a new order.

Section 9 provides that it shall be lawful for the minister to establish and work transport services by land or water.

Three other sections of the Act (which mainly resulted from outside pressure brought to bear upon the Government whilst the Bill was under consideration) are of sufficient importance to justify full quotation. They are worded as follows:—

21. (1) For the purpose of giving advice and assistance to the Minister with respect to and for safeguarding any interests affected by any directions as to rates, fares, tolls, dues, and other charges or special services, a committee shall be appointed consisting of five persons, one being a person of experience in the law (who shall be chairman) nominated by the Lord Chancellor, two being representatives of the trading and agricultural interests nominated by the Board of Trade, after consultation with the Associated Chambers of Commerce, the Central Chamber of Agriculture, and other interests concerned, one being a representative of transportation interests nominated by the Minister, one being a representative of labour interests nominated by the Minister of Labour, after consultation with the Parliamentary Committee of the Trades Union Congress and other interests concerned, together with, if deemed advisable, one additional member who may at the discretion of the Minister be nominated from time to time by him.

(2) Before directing any revision of any rates, fares, tolls, dues, or other charges, or of any special services, the Minister shall refer the matter to the Committee for their advice, and they shall report thereon to him, and, where such revision is for the purpose of an increase in the net revenue of any undertakings which the Minister determines to be necessary, the committee

shall also advise as to the best methods of obtaining such increase from the different classes of traffic, having due regard to existing contracts and the fairness and adequacy of the methods proposed to be adopted. Before prescribing the limits of rates, tolls, or charges in connexion with a new transport service established under section nine of this Act, the Minister shall refer the matter to the Committee for their advice.

(3) The Committee, before reporting or advising on any matters referred to them under this section, shall, unless in their discretion they consider it unnecessary or undesirable to do so, give such public notice as they think best adapted for informing persons affected of the date when and the place where they will inquire into the matter, and any persons affected may make representations to the Committee, and, unless in their discretion the committee consider it unnecessary, shall be heard at such inquiry, and, if the committee in their discretion think fit, the whole or any part of the proceedings at such inquiry may be open to the public ;

Provided that, for the purpose of this provision, the council of any city, borough, burgh, county, or district shall be deemed to be persons affected in any case where such council or any persons represented by them may be affected by any such proposed revision as aforesaid.

(4) The Committee shall hear such witnesses and call for such documents and accounts as they think fit, and shall have power to take evidence on oath, and for that purpose any member of the committee may administer oaths.

(5) There shall be paid out of moneys provided by Parliament to all or any of the members of the committee such salaries or other remuneration as the Minister, with the consent of the Treasury, may determine.

(6) For the purposes of this section, " special services " means the services mentioned in section five of the schedule to the orders relating to railway rates and charges, and in the corresponding sections of the schedules to the orders relating to canal tolls, rates, and charges, confirmed by various Acts passed in the years eighteen hundred and ninety-one, to eighteen hundred and ninety-four.

22. (1) For the purpose of giving advice and assistance to the Minister with respect to and for safeguarding any interests affected by the exercise of the powers and the performance of his duties under this Act in relation to roads, bridges and vehicles and traffic thereon, a committee (hereinafter referred to as the Roads Committee) shall be appointed.

(2) The Roads Committee shall consist of not less than eleven members, of whom five shall be representative of highway authorities, appointed after consultation with such authorities,

and five shall be representative of the users of horse and mechanical road traffic, appointed after consultation with the interests concerned, and one shall be a representative of labour, appointed after consultation with the interests concerned.

(3) The chairman shall be elected by the members of the Committee from among their own number, and the secretary of the Roads Committee shall be appointed by the Minister.

(4) The Roads Committee may make regulations as to their procedure and method of voting, and may at their discretion consider and report to the Minister upon any matters affecting the construction, improvement, or maintenance of roads or bridges, or the regulation of traffic thereon.

23. (1) For the purpose of giving advice and assistance to the Minister in connexion with the exercise and performance of his powers and duties, the Minister shall set up a panel of experts, and of impartial persons of wide commercial and trading experience, appointed from nominees, after consultation with the various undertakings and interests concerned, of the various classes of undertakings affected by this Act, and of labour, trading interests, local authorities, and such other interests as he may deem desirable.

(2) Before exercising any of the powers under subsection (1) (*b*) of section three of this Act, to the exercise of which the owners of the undertaking concerned object, or establishing new transport services by land or water, the Minister shall refer the matter to a committee selected by him from the said panel.

(3) The advisory panel or any committee to whom any matter is referred under this section shall, before reporting or advising if they see fit, give public notice and permit any person affected or likely to be affected to place his views before them either orally or in writing.

(4) Any member of the advisory, panel, or any committee thereof, or of any other committee established under this Act, for giving advice and assistance to the Minister, shall be considered to be acting entirely in a confidential capacity.

I have quoted fairly extensively from this Act on account of the vital importance attaching to the powers and duties which it confers upon the Minister responsible for its administration. The reader will realize, if he has not previously studied this subject, that the Ministry of Transport possesses powers to improve and extend existing transit facilities and create additional resources of the kind. If efficiently and impartially administered this new department should prove a valuable asset in the industrial development of Ireland.

But a fairly long practical experience of the British Government's consistent neglect, and, in some cases, deliberate restraint, of the development of Ireland's industrial resources, has made me chary of building castles which depend for their support upon the goodwill of British Government departments. Just as this department is in a position to do untold good for Ireland, it is also in a position to do untold harm. Should the Government at any time, for reasons of their own, or through pressure behind the scenes from powerful cross-channel trading or industrial interests, desire to check or retard Irish trade or industrial progress, the Ministry of Transport provides them with a most effective weapon for accomplishing their purpose.

The Minister has set up a branch of the Ministry in Ireland; he has appointed a highly qualified gentleman as director of this branch, and that gentleman has appointed a highly efficient staff of officers to assist him in his duties. It now remains to be seen whether or not the Irish branch of the Ministry will be given a free hand to improve and extend existing and develop potential transit resources in Ireland, or whether, as heretofore, more powerful interests in Great Britain are to continue to act as a break upon the development of Irish trade and industry.

CHAPTER XIII

BANKING

THE reader in search of a complete history of Irish banking has only to refer to some of the many available volumes and Government reports which deal specifically with the subject, to procure all the *data* he requires. The present writer is compelled by limitation of space to give no more than an outline sketch of the subject.

The public banking systems operating in Ireland at the present day may be divided as follows :—

(*a*) JOINT STOCK BANKS.
(*b*) POST OFFICE SAVINGS BANKS.
(*c*) TRUSTEE SAVINGS BANKS.
(*d*) THE LOAN FUND BOARD.
(*e*) CO-OPERATIVE CREDIT SOCIETIES.
(*f*) THE NATIONAL LAND BANK.

I. JOINT STOCK BANKS

The first Joint Stock Bank established in Ireland was the Bank of Ireland, which received its Charter on May 15, 1783. Following this, came the Northern Banking Company, in 1824; the Hibernian and Provincial Banks, in 1825; the Belfast Banking Company, in 1827; the National Bank (founded by Daniel O'Connell), in 1835; the Ulster Bank and the Royal Bank of Ireland, in 1836; and the Munster Bank, in 1862. This latter bank suspended payment in 1885, and was replaced by the Munster and Leinster Bank.

The multiplication of branches of these banks in the past seventy years has been considerable, as will be seen by reference to the following table:—

Year.	No of Head Offices and Branches Open.	No. of Sub-Branches and Agencies Open.	Total. No. Open.
1850	165	—	165
1860	180	—	180
1870	285	19	304
1880	415	64	479
1890	421	148	569
1900	456	205	661
1910	505	304	809
1920	671	584	1,255

The following table shows the number of head offices, branches, sub-branches, and agencies possessed by each of the Irish Joint Stock Banks at the end of the year 1919 :—

Bank.	No of Head Offices and Branches	No. of Sub-Branches and Agencies.	Total.
Ulster Bank[1]	109[4]	129[5]	238
Northern Banking Company	81[6]	118[7]	199
National Bank[2]	114	82	196
Munster and Leinster Bank	83	57	140
Provincial Bank	73	54	127
Bank of Ireland	76	47	123
Belfast Banking Co.[3]	67	48	115
Hibernian Bank	55	46	101
Royal Bank of Ireland	13	3	16
TOTALS	671	584	1,255

For Footnotes see bottom of p. 245.

These tables, if read in conjunction with that which follows, demonstrate the remarkable expansion that has taken place in the operations of Irish Joint Stock Banks in the past eighty years.

TABLE SHOWING THE TOTAL DEPOSITS AND CASH BALANCES IN IRISH JOINT STOCK BANKS AT VARIOUS PERIODS FROM THE YEAR 1840 TO 1919.

Year.[1]	Amount of Deposits and Cash Balances on December 31.
	£
1840	5,568,000
1850	8,269,000
1860	15,609,000
1870	24,366,000
1880	29,746,000
1890	33,325,000
1900	43,280,000
1910	54,936,000
1912	57,651,000
1913	62,142,000
1914	66,168,000
1915	66,803,000
1916	74,659,000
1917	91,361,000
1918	121,191,000
1919[2]	136,134,000

[1] On December 31 of each year.
[2] On June 30, 1919.

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[1] This Bank is affiliated to the London County Westminster & Parrs Bank, Limited.

[2] These numbers are exclusive of the Head Office and twenty-three branch offices which are situated in England and Wales.

[3] This Bank is affiliated to the London Joint City and Midland Bank, Ltd.

[4] Of these, twenty-four are situated in Leinster, fifteen in Connaught, and four in Munster.

[5] Of these, thirty-five are situated in Leinster, twenty-five in Connaught, and two in Munster.

[6] Of these, nine are situated in Leinster and one in Connaught.

[7] Of these, one is situated in Leinster and one in Connaught.

The following table shows that from June 30, 1914, to December 31, 1919, the amount of Government Stocks on which dividends are payable at the Bank of Ireland *increased* by nearly 119 *per cent.*

GOVERNMENT STOCK ON WHICH DIVIDENDS ARE PAYABLE AT THE BANK OF IRELAND.[1]

Date.	Amount.
	£
1914 June 30	42,191,000
Dec. 31	42,042,000
1915 June 30	44,274,000
Dec. 31	46,936,000
1916 June 30	52,278,000
Dec. 31	55,756,000
1917 June 30	67,663,000
Dec. 31	70,317,000
1918 June 30	78,109,000
Dec. 31	85,360,000
1919 June 30	90,293,000
Dec. 31	92,420,000

The two foregoing tables should be read in conjunction with the last column of the following table, which shows that from June 30, 1914, to December 31, 1919, the general level of wholesale prices *increased* by nearly 200 *per cent.* Accordingly, the deposits in the Irish Banks on December 31, 1919, represented *less purchasing power* than did the deposits on June 30, 1914.

"In measuring by an index number the general level of prices in the United Kingdom, the Board of Trade select forty-five commodities (coal and metals, wool and other textiles, raw materials; grain, meat and other food and drink stuffs; bricks, hides, and other miscellaneous commodities), and assign to each its due importance. Assuming that one hundred represented the general level of the wholesale prices of these forty-five commodities in the year 1900, the figures in the second column of the following table represent, according to the Board of Trade, the general level of wholesale prices at the date mentioned. The third column shows the percentage increase from June 30, 1914. Thus, from June 30, 1914, to December 31, 1919, the general level of wholesale prices in the United Kingdom increased by 199.2 per cent."

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[1] *Monthly Statistical Statement* (February, 1920) issued by the Department of Agriculture and Technical Instruction for Ireland.

BOARD OF TRADE INDEX NUMBER OF WHOLESALE PRICES.[1]

Date	Index Number (Index Number for year 1900=100).	As a percentage of June 30, 1914.
1914 June 30	115.5	100.0
Dec. 31	125.7	108.8
1915 June 30	150.7	130.5
Dec. 31	159.4	138.0
1916 June 30	191.6	165.9
Dec. 31	224.0	193.9
1917 June 30	256.3	221.9
Dec. 31	266.7	230.9
1918 June 30	283.9	245.8
Dec. 31	298.6	258.5
1919 June 30	277.7	240.5
Dec. 31	345.6	299.2

Whilst giving interesting information concerning the position of their undertakings, the balance-sheets of Irish Joint Stock Banks throw no light upon the amounts invested by the banks in Irish trade and industry. In a few cases the items *advances on securities and current accounts* are inserted separately, but in most cases the item *bills discounted* is added to these, and only the total amount of the three items added together appears in the balance sheets. As a considerable per centage of the item *bills discounted* represents investments made by Irish banks in foreign bills on London, Irish trade or industry does not benefit thereby. Consequently, there are no *data* to guide us in making a reliable estimate of the amount of their assets invested by Irish banks in Irish trade and industry. It is obvious from the figures disclosed in their balance-sheets that most of these banks invest a larger proportion of their funds in Government and other external securities than in those of Irish origin. An explanation which partly accounts for this procedure is that these banks are obliged to keep the bulk of their funds in liquid form; either in the form of cash-in-hand, or at call, or in securities of a rapidly negotiable kind. The banks are thereby precluded from sinking too large a proportion in Irish trading or industrial ventures, which investments would necessitate the locking-up of considerable sums for indefinite periods.

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[1] *Ibid.*

A perusal of the following table will inform the reader as to the manner in which the assets of the Irish Joint Stock Banks are apportioned. (See opposite page.)

It is commonly believed that the sums *on deposit* in Irish Joint Stock Banks represent money actually lodged in the banks, or net savings. Were this the case the latest deposit statistics would certainly indicate a rapid growth of economic prosperity in Ireland, though it would also indicate a lack of intelligence upon the part of the depositors, that they should be content to accept the comparatively small rate of interest which banks pay on money lodged on deposit with them. No doubt a fair amount of money is actually deposited with the Irish banks in this manner, but were the figures obtainable, which they are not, it would probably be found that the total sum so deposited in Ireland falls far below what it is believed to be, and that this commonly accepted belief, as to the extent of the growing economic prosperity of Ireland, is partly fallacious.

The Department of Agriculture, some years ago, pointed out that *such a growth and its extent could only be determined by a complete account of savings on the one hand, and of indebtedness on the other.* Professor Smiddy, a recognized authority upon the subject of Banking, has stated that:

> When one sees the deposits inIrish banks exceeding £100,000,000 sterling one must not conclude that they represent money actually lodged in the banks; the larger proportion thereof represents money or credit manufactured by the banks. Every loan given by a bank means the creation of a deposit of equivalent value; by a fiction it is called a deposit. When it is drawn or transferred to another by cheque it may become a deposit in

STATEMENT SHOWING THE ASSETS (EXCLUSIVE OF VALUE OF BANK PREMISES) OF IRISH JOINT STOCK BANKS IN THE YEAR 1919.

Bank.	Cash on hand, at Bank of England and with other Bankers, Money at Call and at Short Notice.	Government Treasury Bills.	INVESTMENTS.		Bills Discounted, Advances on Securities, and Current Accounts.
			In War Loan and other Government Stocks.	In Indian and Colonial Government Stocks, Corporation Stocks, Railway Debenture and Preference Stocks, Debenture Bonds, etc.	
	£	£	£	£	£
National Bank[1]	19,295,653		5,744,878	842,932	16,014,768
Bank of Ireland[2]	12,997,481	850,000	13,870,127	3,476,534	11,512,632
Belfast Banking Co.	4,054,562	1,479,552	3,899,787[3]	372,691	10,352,352
Ulster Bank	6,234,530	700,000	9,714,771	1,559,926	10,248,729
Provincial Bank of Ireland	3,419,460	—	6,591,206		7,994,247
Munster & Leinster Bank	3,753,944	3,850,000	7,283,660	155,137	6,822,086
Northern Banking Co.	3,570,428	400,000	5,325,004	1,094,029	6,176,577
Hibernian Bank	1,485,145	700,000	5,527,235	473,665	3,944,106
Royal Bank of Ireland[4]	278,793	—	1,508,725	211,113	1,703,332

[1] This Bank's totals are inclusive of the accounts of the Head Office and 14 branches in London as well as 9 branches in other parts of England and Wales.

[2] These figures are exclusive of an item of £2,630,769, i.e., "British Government Debt."

[3] This figure is inclusive of an item, £1,057,266, which sum represents "Advances to customers still outstanding against War Loans."

[4] All the Branches of this Bank are situated in the City and Suburbs of Dublin.

another bank; and the currency is increased to that amount until the debt is finally paid.

Instances have occurred, though perhaps not frequently, of small Irish farmers who, for reasons of their own, desiring to pose as men of good financial standing, have given banks a *lien* on their farms in consideration of the banks advancing them sums of money; these sums they, in turn, have placed on *deposit* with the banks, and then, being possessors of deposit receipts for the amounts of these loans, they have displayed the receipts as *evidence* of their financial standing.

Whilst this may not be a common practice it serves to illustrate the fact that the amounts *on deposit* in Irish Joint Stock Banks do not necessarily represent Irish *net savings*, and that deductions must be made from the totals appearing under this head before the *net* figure can be determined.

The reader will have noted the fact that the two North of Ireland Joint Stock Banks have amalgamated with important English banks. These fusions possess possible advantages for Irish trade and industry, provided the English partners—the predominant power—in the undertakings give a free hand to the Irish branches to continue and extend their operations in Ireland. Provided there is no interference with the Irish branches, Irish trade and industry should benefit by the additional facilities which these highly capitalized banks can afford them—both as regards extensive loans of money and the advantages accruing from their foreign connexions. But the fact must not be lost sight of that if, at any time, for reasons of their own, the British Government, or powerful trading interests in Great Britain, should decree that a check be put upon the expansion of Irish trade or industry, it is possible that these banks, whose chief interests are rooted in Great Britain, could not resist such pressure, in which event their association with Ireland would prove disastrous to Irish trading and industrial interests.

2. POST OFFICE SAVINGS BANKS

Post Office Savings Banks were established in Great Britain and Ireland in the year 1861. The objects for which they were established were: (1) To supply a safe medium to small depositors wherein they could lodge their savings, at a low rate of interest; and (2) to enable the Government to utilize the sums so deposited in meeting a share of the National expenditure—a cheaper method of doing so than having recourse to the usual channels which necessitated paying a higher rate of interest.

The sums deposited in these banks in Ireland, as will be seen from the table inserted below, have reached a very considerable figure. Whilst this fact gives evidence of the thrift of a large number of the people, it also possesses an aspect which is far from satisfactory. All monies lodged in Ireland in Post Office Savings Banks are withdrawn from the country; consequently they cease to be of productive value so far as Ireland is concerned. One has only to examine the following table to realize the economic waste which this system of banking entails:—

TABLE SHOWING THE AMOUNT DEPOSITED AND THE NUMBER OF SEPARATE ACCOUNTS OPEN IN THE POST OFFICE SAVINGS BANKS IN IRELAND AT VARIOUS PERIODS FROM THE YEAR 1862–1919

Year.[1]	Amount of Deposits.	Number of Separate Accounts.
	£	
1862	79,000	—
1870	583,000	—
1880	1,556,000	82,131
1890	3,723,000	198,790
1900	8,059,000	381,865
1910	11,931,000	606,397
1912	12,824,000	641,800
1913	13,167,000	656,700
1914	12,748,000	658,000
1915	11,781,000	663,000
1916	11,679,000	671,500
1917	11,264,000	681,500
1918	12,100,000	—
1919[2]	13,006,000	—

[1] On December 31 of each year.

[2] On June 30, 1919.

3. TRUSTEE SAVINGS BANKS

These small Savings Banks have had a somewhat chequered career. Considerable numbers of them were established in Ireland [1] since the date of their introduction into the country, in 1816, but, of the total, only twelve now remain in existence. One of the chief causes of the disappearance of the others was that the Trustees, whose services must be given free of recompense, failed to give sufficient attention to their self-imposed

TABLE SHOWING THE AMOUNT DEPOSITED AND THE NUMBER OF SEPARATE ACCOUNTS OPEN IN TRUSTEE SAVINGS BANKS IN IRELAND AT VARIOUS PERIODS FROM THE YEAR 1817–1919.

Year.[2]	Amount of Deposits.	No. of Separate Accounts.
	£	
1817	1,846	*
1820	103,000	*
1830	1,135,000	*
1840	2,177,000	*
1850	1,292,000	*
1860	2,143,000	*
1870	2,055,000	*
1880	2,079,000	53,910
1890	1,973,000	49,643
1900	2,309,000	50,318
1910	2,515,000	56,192
1912	2,606,000	56,652
1913	2,612,000	56,867
1914	2,559,000	55,356
1915	2,490,000	55,671
1916	2,490,000	55,894
1917	2,453,000	56,292
1918	2,878,000	*
1919[3]	3,166,000	*

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[1] Between the years 1862 and 1904 forty-three of these Banks had been closed in Ireland, i.e., those at Ballymena, Gracehill, Lisburn, Cavan.

duties, with the result that the management proved defective, and the banks were forced to close.

A perusal of the foregoing table shows that since 1890 the deposits in these banks have not reached a level approaching those which the Post Office Savings Banks in Ireland have been able to attract. This, no doubt, is due to the small depositors reposing greater confidence in the security which the Post Office Savings Banks offer.

The location of the twelve Trustee Savings Banks operating in Ireland to-day and the years in which they were established are as follows :—

ARMAGH	1818	ENNISKILLEN	1825
BELFAST	1816	LIMERICK	1820
COLERAINE	1832	LONDONDERRY	1816
CORK	1817	MONAGHAN	1819
DUBLIN	1818	ROSCREA	1830
DUNGANNON	1819	WATERFORD	1816

The Official Report for the year ended November 20, 1917, the latest available, showed that at that date the figures for England and Wales, Scotland, and Ireland, were :—

	No. of Banks.	No. of Depositors.	Total Amount Owing to Depositors.
			£
England and Wales	103	1,282,339	29,199,060
Scotland	62	688,509	19,984,654
Ireland	12	56,292	2,476,144

Ennis, Bandon, Fermoy, Youghal, Cardonagh, Castlewellan, Hillsborough, Newry, Warrenpoint, Castleknock, Ballinasloe, Celbridge, Kilkenny, Parsonstown (Birr), Tullamore, Limavady, Ardee, Drogheda, Dundalk, Castlebar, Kells, Navan, Abbeyleix, Portarlington, Boyle, Sligo, Cashel, Clonmel, Thurles, Omagh, Strabane, Clogher, Cookstown, Castlepollard, Gorey, Wexford, Arklow, Baltinglass, and Bray. . . . The largest number of Trustee Savings Banks in existence in Ireland at one time was in the years 1838 and 1839, when there were eighty operating.

[2] On December 31 of each year.

[3] On June 30, 1919.

* Figures not obtainable for these years.

What has been stated regarding the uneconomic effect, so far as Ireland is concerned, of depositing savings in the Post Office Savings Banks, applies with almost equal force to the Trustee Savings Banks, the Trustees being required to invest the bulk of the sums deposited with their banks in British Government securities.

THE LOAN FUND BANKS

The system of issuing to indigent and industrious persons small loans, repayable by instalments, was introduced into Ireland by Dean Swift, who placed the sum of £500 under the supervising control of certain persons for the making of loans to the poor artisans of Dublin. The advantage to the poorer classes of small loans of money to purchase implements of trade early attracted the notice of the Irish Parliament; and various associations of benevolent individuals organized themselves in order to form by voluntary subscriptions a capital fund to be lent to industrious tradesmen on the joint security of one or more persons for repayment of the loan within a year, without interest.[1]

An Act of Parliament was passed, in the year 1823, authorizing any number of persons desirous of forming a Charitable Loan Society to do so, and to charge interest on loans issued by them. An amending Act was passed in 1829, and a further amending Act in the year 1836. This latter Act authorized the Lord Lieutenant to appoint a Central Board of Commissioners, entitled the *Loan Fund Board*, to supervize the working of the Societies. This was the origin of the present Irish Loan Fund Board. By Order in Council, dated December 21, 1915, the administration of this System was transferred to the Department of Agriculture and Technical Instruction for Ireland.

At no time in their history did these Banks make an extensive appeal to those who might have been expected to avail themselves of the facilities they offered them for obtaining small loans at a reasonable rate of interest.

The following figures illustrate this fact, and also the declining condition of this system for many years past :—

[1] Report of the Departmental Committee on Agricultural Credit in Ireland, paragraph 194, p. 81. (Cd. 7375).

TABLE SHOWING THE NUMBER OF SOCIETIES REPORTING; TOTAL AMOUNT CIRCULATED, AND NUMBER OF LOANS ISSUED SINCE THE CREATION OF THE IRISH LOAN FUND BOARD.

Year.	No. of Societies Reporting.	Total Amount Circulated.	No. of Loans Issued.
		£	
1838	50	180,526	148,528
1840	215	1,164,046	463,750
1850	132	662,794	189,235
1860	110	917,737	198,355
1870	88	565,422	121,078
1880	78	428,634	89,590
1890	99	498,651	85,713
1900	65	215,495	41,992
1910	51	196,898	39,650
1915	51	168,987	27,768
1916	50	157,736	25,681
1917[1]	48	153,599	24,051

The following Table shows the number of Loan Fund Societies operating in each of the Provinces in the year 1917, and the relative extent to which this source of credit is made use of in each Province:—

Province.	No. of Societies.	Amount of Capital	Total Amount Circulated in 1917.	No. of Loans Issued.
		£	£	
Ulster	13	31,148	55,740	7,443
Leinster	14	17,941	38,216	6,725
Munster	15	19,626	32,058	5,676
Connaught	6	13,662	27,585	4,207
TOTALS	48	£82,377	£153,599	24,051

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[1] Figures for later years are not yet available.

It will be seen from these figures, that although the number of Societies in Ulster is one less than in Leinster, and two less than in Munster, the amount of money advanced by the Ulster Societies in the year 1917 was £17,524 greater than that advanced by the Leinster Societies, and £23,682 greater than that advanced by the Munster Societies in the same year.

5. CO-OPERATIVE CREDIT SOCIETIES

This, one of the most recent banking systems introduced into Ireland—the first society started operations at Doneraile, in the County Cork, in February, 1895—was an outcome of the Irish Co-operative Movement, founded in the year 1889, by Sir Horace Plunkett who described the aim and *modus operandi* of these credit societies as follows :—

> The exact purpose of these organizations is to create credit as a means of introducing capital into the agricultural industry. They perform the apparent miracle of giving solvency to a community composed almost entirely of insolvent individuals. . . . They have no subscribed capital, but every member is liable for the entire debts of the association. Consequently, the association takes good care to admit men of approved character and capacity only.
>
> It starts by borrowing a sum of money on the joint and several security of its members. A member wishing to borrow from the association is not required to give tangible security, but must bring two sureties. He fills up an application form which states, among other things, what he wants the money for. The rules provide—and this is the salient feature of the system—that a loan shall be made for a productive purpose only, that is, a purpose which, in the judgment of the other members of the association as represented by a Committee democratically elected from among themselves, will enable the borrower to repay the loan out of the results of the use made of the money lent.
>
> Raiffeisen held, and our experience in Ireland has fully confirmed his opinion, that in the poorest communities there is a perfectly safe basis of security in the honesty and industry of its members. This security is not valuable to the ordinary commercial lender, such as the local Joint Stock Bank. Even

if such lenders had the intimate knowledge possessed by the Committee of one of these associations as to the character and capacity of the borrower, they would not be able to satisfy themselves that the loan was required for a really productive purpose, nor would they be able to see that it was properly applied to the stipulated object. One of the rules of the co-operative banks provides for the expulsion of a member who does not apply the money to the agreed productive purpose. But although these "banks" are almost invariably situated in very poor districts, there has been no necessity to put this rule in force in a single instance. Social influences seem to be quite sufficient to secure obedience to the association's laws.[1]

The subsequent history of this system of banking is extremely interesting, and is, in itself, an indirect indication of the change that has been effected in Irish agricultural economy in the intervening years.

The table on following page contains an amount of informative *data* concerning the growth and operations of this system in Ireland since its establishment in the year 1895.

The reader will notice from these figures that there has been a falling off in recent years in the number and total value of loans granted by these Societies. The report of the Irish Agricultural Organization Society Limited for the year ended March 31, 1918, in commenting upon the position of the Irish Agricultural Credit Societies, stated:

> The fundamental fact in the present position of these societies is that, whilst there is little or no progress to report in those of them which had come to lean on State capital (now withdrawn and practically all repaid) or joint stock bank overdrafts, the more self-reliant societies which depended on local deposits for their financial support are holding their own. This is, perhaps, all that can be expected during an agricultural "boom" when money is more plentiful than it has ever been. Whether, however, this type of society will persist when normal conditions have been resumed it is impossible at present to predict. It is certain that these societies have been of great use in backward districts, where they have tided small farmers over very difficult times and broken gombeening, that they are still exceedingly useful in many places, and that there seems no good reason why, wherever agricultural credit may still be needed under post-war

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[1] Report of the Departmental Committee on Agricultural Credit in Ireland, 1914. Cd. 7375), paragraph 286, p. 123.

TABLE SHOWING THE AMOUNT OF DEPOSITS, LOAN CAPITAL, TOTAL CAPITAL, ETC., ETC., OF THE CO-OPERATIVE CREDIT SOCIETIES IN IRELAND IN EACH YEAR FROM 1895–1917.

Year.	Deposits of Societies	Total Capital of Societies.	Reserve Fund of Societies.	Total Number of Loans Granted to Members.	Total Amount of Loans Granted.
	£	£	£		£
1895	—	—	—	—	100
1896	—	278	32	—	388
1897	—	295	42	124	475
1898	—	3,420	—	—	3,306
1899	—	4,898	—	—	5,550
1900	—	6,097	—	—	7,270
1901	—	9,123	—	2,534	10,459
1902	—	13,956	—	3,241	15,447
1903	—	19,588	—	3,722	20,435
1904	—	28,466	1,181	5,822	31,742
1905	12,710	38,428	1,717	7,453	43,641
1906	16,708	46,381	2,322	8,447	50,264
1907	17,098	48,718	2,670	9,046	53,112
1908	20,261	53,123	2,960	8,926	56,004
1909	23,688	56,469	3,559	9,213	57,640
1910	25,077	55,885	3,593	8,618	55,855
1911	27,290	56,554	3,686	7,967	56,055
1912	30,468	62,206	4,492	8,522	58,244
1913	28,685	55,283	4,493	7,908	55,493
1914	33,738	56,272	4,779	7,352	52,927
1915	37,182	52,784	4,830	6,301	48,197
1916	39,431	49,460	4,584	5,028	41,281
1917	34,179	43,872	4,521	4,792	41,993

conditions, they should not continue to be utilized. This is the opinion, at all events, of most of those amongst whom they are still doing active work.

THE NATIONAL LAND BANK

The latest bank opened in Ireland is the National Land Bank, Limited, which has its head office in Dublin. It is not possible to give any *data* concerning its operations, for the reason that it is not yet many months in existence.

Its *raison d'être* and the terms it offers to investors are set out as follows:

> The National Land Bank, Ltd., has been founded to secure for the benefit of the Irish people the use of Irish money in Ireland, and to establish a financial centre for the development of their interests. The most important of the objects of the Bank, which are already being carried out, and which will be kept in the forefront of its operations, are Land Purchase, the taking of deposits at interest to be used in financing Irish agriculture and industry, and the carrying on of a general banking business (including current accounts).
>
> The National Land Bank offers to the Irish public a means of investing their savings and surplus funds at favourable rates of interest and with the greatest possible security in a Bank which does not make profits for individuals, and which uses its funds solely in the development of their own industries and agriculture.
>
> The Bank is registered under the Industrial and Provident Societies Acts as a co-operative institution. Under the rules the interest on share capital is strictly limited, and practically all the disposable surplus on each year's operations, after providing for a reserve fund for the security and development of the business, will be allocated to increasing the interest allowed by the Bank to its depositors.
>
> The Bank offers to depositors the security of the mortgages on Irish Land, the greatest portion of which is held in fee-simple. The monies secured under these mortgages are guaranteed by the Directors to be considerably less than the actual value of the properties; and the security of the depositors is enhanced by the operation of the Bank which sub-divides large estates and grazing ranches into small holdings for tillage. . . . Irish men and women must be patriotic in the investment of their money. The money deposited in the Joint Stock Banks is not used in Ireland; it is invested in so-called gilt-edged securities, from which hundreds of thousands of pounds have to be written off yearly for depreciation. Interest at 2½ or 3 per cent is paid to depositors and 12 to 20 per cent to shareholders. THE NATIONAL

Land Bank, Ltd., asks for your deposits to invest them in Irish Land and its produce, and to make Irish industry and agriculture fruitful and prosperous.

The Bank offers 3½ per cent on deposits at call (nominally subject to a month's notice), and will issue deposit bonds at a higher rate to those who wish to leave their money with it for a year or several years. As above mentioned the security is first mortgages on Irish land—which, so far from being affected by depreciation, becomes more valuable through the operations of the Bank.

The National Land Bank is an Irish institution founded to assist in the rebuilding of Ireland's prosperity, the restoration of her population, and the securing of her economic independence. It is a National Bank with a National Ideal. Its security will be Irish land and the energy and faith of the best of her people.

The first Directors of the Bank are gentlemen of high standing, and they have secured as Secretary and Manager a gentleman who has had considerable experience in connexion with agricultural banking operations. It remains to be seen whether or not it will attain its object.

7. CONCLUSION

The foregoing represent the principal banking systems established in Ireland. The amount of information concerning them, contained in this chapter, is necessarily incomplete, but the subject of Irish banking, if fully dealt with, would require an entire volume to itself. I have endeavoured to give the reader sufficient *data* upon the subject to enable him to form a fair idea of the variety and extent of Irish banking operations; and as previously stated, those who desire to obtain a more extensive knowledge of this subject will find a full range of works easily available from which to prosecute their studies. Before closing this chapter I desire to acknowledge my indebtedness to one of these works, namely, the Report of the Departmental Committee on Agricultural Credit in Ireland, 1914,[1] a volume which is a mine of valuable information on the history of Irish banking, and from which many of the figures quoted in this chapter were derived.

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[1] Cd. 7375. Price 4s. 8d.

CHAPTER XIV

CENSUS OF IRELAND

TO arrive at a correct understanding of the causes responsible for the dearth of and fluctuations in Irish industry in modern times, it is essential that no important factor having a bearing upon this subject should be lost sight of. Of the many influences that have left their mark upon the situation, one of the most important, if not *the* most important, is the decrease of the population of Ireland during the past century. I append a few tables, taken from the latest published Census of Ireland (1911), so that the reader may compare the rise or fall, at various times, of the industries dealt with in the preceding pages with the population of Ireland at corresponding dates.

TABLE SHOWING THE POPULATION OF IRELAND IN EACH OF THE DECENNIAL PERIODS, 1821–1911.

Census Periods.	POPULATION.		
	Persons.	Males.	Females.
1821	6,801,827	3,341,926	3,459,901
1831	7,767,401	3,794,880	3,972,521
1841	8,175,124	4,019,576	4,155,548
1851	6,552,385	3,190,630	3,361,755
1861	5,798,967	2,837,370	2,961,597
1871	5,412,377	2,639,753	2,772,624
1881	5,174,836	2,533,277	2,641,559
1891	4,704,750	2,318,953	2,385,797
1901	4,458,775	2,200,040	2,258,735
1911[1]	4,390,219	2,192,048	2,198,171

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[1] There were 25,100 military returned as serving in Ireland in 1911.

The following table shows, by Provinces, the Increase or Decrease of the Population of Ireland in each of the *decennial* periods, 1921 to 1911 :—

Period 10 yrs. Ended		PROVINCES.			
		Leinster.	Munster.	Ulster.	Connaught.
1831	(Increase)	152,221	291,540	288,128	233,685
1841	(do.)	64,018	169,009	99,751	74,945
1851[1]	(Decrease)	300,993	538,425	374,493	408,828
1861	(do.)	215,103	344,178	97,644	96,896
1871	(do.)	118,184	120,073	81,008	66,922
1881	(do.)	60,462	62,370	90,153	24,556
1891	(do.)	91,229	158,713	123,261	96,883
1901	(do.)	34,931	96,214	36,988	77,842
1911	(Decrease)	—	40,693	1,130	35,948
	(Increase)	9,215	—	—	—
1821 to 1911	(Decrease)	595,488 33.88 p.c.	900,117 46.50 p.c.	416,798 20.86 p.c.	499,245 44.97 p.c.

The occupations of the people at the date of the 1911 Census were as follows :—

Classes.	Persons.	Males.	Females.
Professional Class	141,134	103,603	37,531
Domestic Class	170,749	25,831	144,918
Commercial Class	111,143	101,396	9,747
Agricultural Class	780,867	721,669	59,198
Industrial Class	613,397	434,699	178,698
Indefinite and Non-Productive Class	2,572,929	804,850	1,768,079

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[1] This period included the years of and four years following the Irish Famine of 1846–7.

The final table of this series shows the extent of the emigration from Ireland in each of the *decennial* periods from 1851 to 1911:

Period 10 years ended.	NO. OF EMIGRANTS.		
	Males.	Females.	Total for 10 years.
1861	585,227	563,891	1,149,118
1871	426,896	341,963	768,859
1881	338,663	279,987	618,650
1891	393,744	374,361	768,105
1901	200,125	230,868	430,993
1911	171,875	173,213	345,088
TOTAL	2,116,530	1,964,283	4,080,813[1]
YEAR 1911	Total Population of Ireland[2] 4,365,119		

A record such as the foregoing must surely make the impartial reader (no matter what his nationality may be) realize that Ireland has suffered during these sixty years from a deep-seated disease; that such an appalling exodus to other lands of the youth of the country cannot be accounted a matter of normal import. No one will accuse Irish men or women of being lacking in affection for their own land. Therefore, want of patriotism is an explanation that must be eliminated from the list of causes accountable for this reduction of population. Had Great Britain suffered in a like manner during these years, such a circumstance would to some extent justify Ireland's depopulation. But, if we take the figures relating to the period twenty years anterior to the last Census, we find that, from the years 1891–1911, the population of England and Wales *increased* by 7,067,967 persons, whilst that of Scotland *increased* by 735,257 persons. During the same period the population of Ireland *decreased* by 314,531.

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[1] The total here given for the sixty years is exclusive of 110,749 persons—61,766 males, 48,973 females—regarding whom the county from which they came was not stated in the original Returns.

[2] Exclusive of military serving in Ireland.

When one considers the loss, in all its aspects, which Ireland has suffered in consequence of this tragic denudation, it is to her credit that she has progressed in trade and industry even to the point which she has now reached, and one is able to form a fair impression of how much further she would have advanced in this connexion had she been free to pursue her own industrial policy instead of being compelled, as she has been, to subordinate it to that of Great Britain. I shall deal more fully with this aspect of the subject in the concluding chapter.

CHAPTER XV

THE IRISH INDUSTRIAL MOVEMENT

WITHIN the past century, as well as in earlier times, movements sprang into being in Ireland which had for their object the fostering and extension of Irish industries. They performed valuable work while they lasted, but, with one exception, were not long lived. The one exception is the present Irish industrial movement, which originated in 1893 with the establishment of the Gaelic League, which made the support of Irish industries one of the most important planks in its programme. Progress was considerably accelerated by the establishment in Dublin in the year 1900 of a weekly journal styled *The Leader*. This journal carried on a vigorous and effective propaganda in favour of Irish men and women supporting native industry; it performed an amount of most useful spade-work, and continues to do excellent work in this connexion.

The next, and most important, milestone was reached in the year 1903, when the first Industrial Development Association was established. Some time previously a group of young men, members of the Cork branch of the Celtic Literary Society, had realized the need of an industrial organization capable of attracting Irish men and women of every shade of political and sectarian opinion into its fold; an organization that would confine itself solely to the advancement of Irish industries and ignore all extraneous matters; an organization that, whilst availing itself of the natural sentiment of the people in favour of anything that would in any way uplift their country, would conduct its proceedings on strict business lines. They realized that without an organization such as this the then infant industrial movement might never grow to maturity. To supply this need these young men, with the co-operation of a number of Irish manufacturers and others, organized a public meeting, held in the Council Chamber of the Cork Chamber of Commerce in April, 1903, which meeting formally established the Cork Industrial Development Association, and appointed a committee, the composition of which was thoroughly representative of every shade of thought indulged in in Ireland and of every grade of society, to carry on the work of the Association.

Anyone familiar with the industrial condition of Ireland in those days will recall that at that time the vast majority of the Irish people were ignorant of the fact that, in addition to the linen, woollen, brewing, and distilling industries, many other industries, most of them of small dimensions, existed in Ireland; a further proportion of the people knew, in a vague sort of way, that other Irish industries existed, but they made no effort to support them; others, without any practical knowledge of Irish manufactures, were convinced that Irish articles could not be as good as those made elsewhere. Irish traders, both wholesale and retail, gave little support to Irish-made goods, and, in the early days of the industrial movement, instances occurred where firms, when forced by customers to stock Irish goods, charged excessive prices for these articles, and in this way endeavoured to create the impression that Irish goods were not as good value as similar commodities imported into Ireland. To dispel this *fog* and substitute for it a clear Irish industrial atmosphere was the task undertaken by the parent association in Cork and the kindred associations which speedily sprang into being in other districts in Ireland.

A word as to how the members of the associations set about trying to encompass this undertaking may interest the reader. They, themselves, insisted upon being supplied with Irish-made goods; they gathered together the fullest possible information concerning existing Irish industries and widely circulated this information; amongst other means which they adopted was the compilation of directories of Irish manufactures, tens of thousands of copies of which were circulated throughout the country and abroad; they induced Irish public bodies to specify for Irish-made goods when contracting for supplies for their institutions; they held numerous public meetings throughout the country; organized special *Irish Week* shop-window displays of Irish goods, as well as exhibitions of these goods in the chief cities and towns throughout Ireland and at agricultural and other shows; they organized annual all-Ireland industrial conferences at which matters of vital importance to the industrial welfare of the country were fully discussed and the decisions come to were put into action—these annual conferences were held in Belfast, Cork, Dublin, Galway, Limerick, and Londonderry—and they had recourse to a variety of other methods, some of which will receive special mention further on.

Not long after the establishment of the Cork Association, similar bodies were established in Limerick, Dublin, Belfast, Galway, Londonderry, and many of the principal towns throughout the country. Some of these have now ceased to exist, but the chief ones have continued and have increased their influence and usefulness as time has passed on. The Cork Industrial Development Association has, within the past few years, received the thanks of such well-known firms as Messrs. Henry Ford & Co., of Detriot, U.S.A., and Messrs. Furness, Withy & Co., of West Hartlepool, for assistance they afforded these firms in arranging preliminary details incidental to their establishing industries in the city and county of Cork. The Cork and Dublin Industrial Development Associations have both, amongst their other activities, performed most valuable work in helping to procure and organize direct shipping facilities between Ireland and countries abroad, as well as assisting in finding foreign markets for Irish manufactures.

Lest the reader may be sceptical of the testimony of an interested person to the practical results which have accrued to Irish industry from the work carried on by the Associations, I shall content myself with quoting the results of an investigation into this subject made by the Tariff Commission, of London, in the year 1912—nine years after the establishment of the parent Industrial Development Association.

In their Report [1] the Commission state :

> Inquiries made by the Tariff Commission among leading British manufacturers show that the Irish national preference for Irish goods has had some effect upon the trade of Great Britain. A Huddersfield firm, relating the experience of Yorkshire cloth manufacturers in Ireland, says :
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> > About thirty years ago Ireland was an important market for good classes of woollen cloths manufactured in Yorkshire, but at the time

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[1] *The Economic Position of Ireland and its Relation to Tariff Reform.* London : P. S. King & Son, 1912, (Price 3d.) pp. 6–10.

of Mr. Parnell's agitation for Home Rule a practical boycott of British goods was set on foot. Many large Irish cloth merchants have since ceased to purchase British-made cloth, and others say that they are often compelled to label as Irish manufacture British goods which they purchase.[1]

In regard to hosiery, the following report is made by the Dublin agent of one of the largest British hosiery firms :—

> There is no doubt whatever about the marked preference shown all over Ireland for home-made goods of every description. This feeling is so pronounced that in many instances the intrinsic value of the article is a secondary consideration,[2] the purchaser being more interested in getting an assurance that it has been made in Ireland; and they are not to be put off by being merely told so, they must see the trade mark or stamp "Made in Ireland" on each article, and inspectors have been appointed to see that no fraud is carried on, prosecutions by them occur frequently, and I think in nearly every instance goods sold as Irish manufacture are genuine.
>
> In connexion with the drapery trade, I may say that English and Scotch manufacturers of hosiery and woollen goods have suffered more than any other departments. There are at least twenty hosiery factories and as many tweed mills in Ireland at present, and all doing fairly well, also numerous makers of scarves, caps, ready-made clothing, shirts, boots, etc. I should tell you that this prejudice in favour of Irish-made goods is much more emphatic in the South and West than it is in the North, as among the Home Rulers and Nationalists the preference has a more or less political taint.

The representative of one of the foremost British paper-making firms says :

> My experience during the seven years I was working Dublin and the South of Ireland was that preference for Irish-made goods, as applied to our own particular manufactures, the paper and stationery trade productions as a whole, and all classes of manufactured goods generally, did most decidedly exist; that it was growing in force and favour during the period stated above; that it had to be regarded as a most serious factor in the situation by all classes of traders, including the retailer, the wholesaler, and the manufacturer, both Irish and otherwise, not only at that time, but in regard to its future development.
>
> I think I am right in saying that this preference was the direct outcome of a movement that had long been taking shape in favour of a development of Irish industries. It arose out of a growing belief that the salvation of Ireland was ultimately an economic rather than a political question, and, this being so, one of the first steps was to re-create an industrial Ireland, and preference for Irish-made goods arose naturally out of this situation. With a sentimental people like

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[1] The Irish Industrial Development Association (Incorporated) has prosecuted offenders detected indulging in this practice.

[2] The Irish Industrial Associations only ask the Irish public to support Irish goods when they are equal in value to those made elsewhere, not otherwise.

the Irish, therefore, everything was ripe for an appeal to them on these grounds. I think it is necessary to appreciate these circumstances if we are to properly understand the situation as it exists at the present time, or as it did exist during the period referred to.

It is interesting to note that up till recently, at any rate, Ireland was the only country possessing a national trade mark similar to that possessed by any trading concern.

I can illustrate this from many cases in my own experience. I will give just one or two. A., of Dublin, put on the market an Irish-made account book which it was claimed by him was made throughout in Ireland. The paper, I believe, was made either at —— or by ——, and the book was made up and bound in Ireland. I remember Mr. B., of Cork, who was, I think, both a Protestant and a Unionist, saying to me apropos of this book of A's., " I know I can get a better book from you at the price, but A.'s is fair value, it is Irish made, and it is an Irish-made book that my customers are asking for, which yours is not."

Then I have a recollection of a conversation that took place with Mr. B., of Dublin, relative to the envelope tender for the Dublin United Tramway Company. I believe I am right in saying that this order was given out to a Dublin firm owing to the fact that they were Irish manufacturers.

My experience all the time I was working Ireland was that the preference for Irish-made goods was something which I always had to be fighting against, and it was always cropping up in a fresh and more menacing form. I frequently heard of cases of clauses being inserted in tenders sent out by local bodies for the supplies of stationery, etc., stipulating that all goods supplied should be on Irish-made papers, and in some cases the actual paper was specified. The invariable comment of the stationer or printer was to the effect that it was no concern of theirs whether the stipulated papers were value or not; they had just got to supply what was asked for.

C., of Dublin, have a 1/- line of notepaper called " Ancient Irish." This line has a very big sale all over the country. It is fair value, but certainly no better than many other 1/- lines on the market; yet it commands a big sale simply because it can claim to be an Irish-made line. Some years back, at the instigation of our representative in Ireland, we produced a line which followed somewhat closely, both as regards quality of contents and general design, the " Ancient Irish " referred to above. When I took over the working of Ireland this line was being cleared, and I sold a parcel to a firm in an Irish city with rather unfortunate results, as they made a display of this line in one of their windows, and were hauled up by some Society for the Protection of Irish Industry, and threatened that if they did not immediately withdraw this line they would be proceeded against for infringing, if not the letter, the spirit of the Irish Industries' movement, and the firm in question viewed the threat with sufficient importance to immediately withdraw the offending line.

Of course there is always a limit to the price which any man, individually or collectively, will pay for his patriotism, and the more enlightened business people, whether traders or consumers, know the exact margin they are prepared to concede in this direction.

Preference must be recognized as existing, none the less that it is based on sentiment rather than statute, and from the English point of view Irish trade must be regarded as a proposition similar in its nature, say, to English trade in a protected country, bearing in mind, of course, that the situation in Ireland is quite unique.

Another traveller now working on Irish ground says:

> This is a very serious matter so far as the South of Ireland is concerned. I understand it originated in Cork, but the present stronghold is Dublin; personally, I believe it originated with the "Sinn Fein" Society, meaning "Ourselves alone." The Dublin printers, etc., on every possible occasion use the Irish-made mark; they even go so far as to stamp it in gold on the back of account books, and I know a card being sold in Dublin at 2s. 3d. per M., which is faced with a foreign tint, and generally is a vile production against our "Nonsuch" at 2s. but it is sold as "Irish-made" paper, etc.
>
> The County Councils stipulate for Irish-made paper invariably.

From the foregoing returns and statement it is apparent that:

(1) Irish industry covers a far wider range than is commonly supposed.

(2) Under the fiscal and other conditions of the past sixty years Irish industries in general, like Irish agriculture, have suffered severely, though the rate of decline has materially slackened in recent years.

(3) The numbers employed in most Irish manufacturing industries show a decline greater than the decline in the population. The population fell from 8,175,000 in 1841 to 4,443,000 in 1901, or 46 per cent, while the numbers employed in manufacturing industries fell from 989,000 to 339,000, or 66 per cent. Between 1881 and 1901 the decline was 14 per cent in population and 11 per cent in persons occupied in manufactures.

(4) Many causes in addition to the decline of population have contributed to the decrease of Irish industry. One of the most important is the increased use of machinery and the transfer of the hand-loom and cottage industries of Ireland to the factories of Ireland and Great Britain.

(5) The linen industry is by far the largest Irish industry. According to the Census of Production of 1907, it gives employment to 71,761 hands. Next in importance are the clothing, handkerchief, and millinery workshops, employing 34,852. Other industries named in order of importance are: Bread and biscuit (9,464), brewing and malting (6,451), engineering (5,767), bleaching, dyeing, etc. (5,767), grain milling (4,875), woollen and worsted (3,341), flax scutching (3,760), timber (3,440), distilling (2,423), mineral waters, etc.(2,110), bacon curing (2,049), boots and shoes (2,026). The numbers employed in private shipbuilding are excluded from the Census of Production in order to fulfil the pledge of the Government not to disclose particulars which could be identified as relating to the two Irish companies.

(6) It is obvious from the foregoing tables that there are in Ireland materials for greater industrial activity. Agriculture is still, and will remain, the main industry of the country, and the regeneration of the rural life of Ireland which is now in progress must provide opportunities for restoring former industries and increasing the variety and range of their output under modern conditions.

(7) British manufacturers comment on the strong Protectionist influence of the "Made-in-Ireland Movement," which is fostered by various political and economic associations such as the Sinn Fein, Gaelic League, and the Industrial Development Associations.

(8) Under a reform of the British fiscal policy, which is responsible for so much of the decline of Irish agriculture and industry, it would be possible to give direct encouragement to Irish industries as well as to those of the rest of the United Kingdom. Natural conditions in Ireland are favourable to the creation of tobacco and sugar industries, and it would be the object of statesmanship to encourage them in various ways as well as the linen, shipbuilding, woollen, boot and shoe, furniture and other industries which have or have had a substantial footing in that country.

The reader might conclude from reading some of the foregoing comments that the Irish industrial movement was unsupported in the North of Ireland. Therefore, I shall venture to trespass upon his patience by quoting excerpts from some leading articles on this subject which have appeared from time to time in the principal Belfast newspapers. Practically all of these papers, politically, hold strong Unionist opinions, but that fact has not prevented them from being consistent supporters of the Irish industrial movement.

> The Irish Industrial Development Association . . . has already done much useful work. There is nothing that this country needs more than the development of its manufactures and industries. Agriculture, it is hoped, will be more prosperous when the tenants have all become the owners of their farms, and when they have adopted the best methods of cultivation; but although Ireland will always be mainly an agricultural country, it must have other industries. . . . It is the object of the Industrial Association to assist in reviving these industries or in bringing new ones into existence; and it tries to do this by increasing the demand for Irish manufactures. . . . It is no part of the object of the Association to encourage or reward industrial inefficiency. . . . If there still lingers in any part of Ireland a

prejudice against home manufactures, or at any rate a tendency to think that those which are brought from other countries must be superior, the Association should be the means of eradicating it. . . . The figures quoted in the report regarding Irish imports and exports show that the external trade of the country is improving. In 1904 the total was under £105,000,000, while in 1907 it was £121,500,000. . . . And the report states that the home demand for Irish manufactures has also increased during the same period. Thus the industrial revival is a fact, though much remains to be done, and the Industrial Development Association is helping to do it. If the demand for Irish goods grows, they will be supplied. Our existing industries will expand, and new industries will be founded. More employment will follow, and the drain of emigration will grow less. Ireland will become more prosperous than it has been for centuries if the industrial revival is allowed to go on peacefully. An Association which is striving to increase the material prosperity of Ireland may fairly appeal to the patriotism of the public to support it.—*Belfast News-Letter.*

The success that has attended the Belfast Industrial Association, brought into being two years ago in order to promote Irish industries, illustrates that which had already been fully demonstrated, that with the Irish industrial revival this city is in active sympathy. . . . It would be strange indeed if it had been otherwise, for it is beyond doubt that from the revival of Irish industries this city, in which Irish enterprise has been most signally manifested, stands to gain more than any other place in the country. . . . The Belfast Association has sister associations in Dublin and in Cork, . . . and without any disparagement of the others it may be said that the Belfast Society has, in well-directed energy and in enthusiasm in the cause, fully held its own. From the first the Association has been all-comprehensive ; it has known nothing of political or ecclesiastical differences ; it has busied itself with practical schemes for bringing before the public the merits of the goods that are produced in Ireland, and that it is not only the duty but the interest of those who live in Ireland to support Irish industries. Especially successful in this direction has been the holding of "Irish Week." . . . That much good came of it, that many were enlightened as to the number and character of Irish native products, and discovered that it was possible for them to obtain of home manufacture many articles of which they had been quite unaware that they were made in Ireland, and that in consequence the demand for home-made goods has been increased, is beyond doubt. . . . Lord Londonderry . . . was right when he said that the reason why contracts that might have been placed in Ireland were given to English firms was that the public were in ignorance of what Irishmen could do in various departments of industry. It was that ignorance which they were endeavouring to eliminate. . . . They are but the few who are able to afford to gratify their patriotic instincts in deliberately going to the dearer market, and there are still fewer, if they exist at all, who are willing to put up with an inferior article because it is Irish. . . . At the same time, there is no true Irishman who, having placed before him two articles of the same quality, and of the same price, one of them Irish and the other imported, will for a moment hesitate about giving his patronage to home industry. The Belfast Industrial Association makes its appeal to the consumer, in whom it is most desirable to cultivate the habit of asking for Irish goods and seeing that he gets them. . . . —*Northern Whig.*

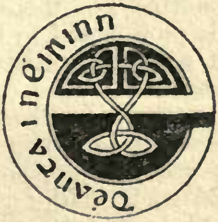
The annual report of the Irish Industrial Development Association . . . records some gratifying results of the year's work, not the least important of which was the Department of Agriculture and Technical Instruction's adoption of the Council's suggestion that the Government prosecutions of fraud on Irish trade should be extended beyond agricultural produce. . . . The work of the Association has been most valuable. The all-Irish shop windows crusade resulted very advantageously to most of the public-spirited merchants who carried it on; and the influence of the "Irish Week" displays has not yet departed. . . . It is only by persistent agitation and by constantly impressing the public and the shopkeepers with the advantages of popularizing and cheapening Irish goods that any permanent benefit will be obtained. Individual sympathizers with the movement are doing their best, and co-operate with earnestness and effect in the work of the Association, the efforts of which they admire and hope will continue. The B.I.D.A. has kept itself before the public splendidly. . . .—*Irish News.*

The efforts of the Belfast Branch of the Irish Industrial Development Association for the benefit of native industries have not been restricted to the Northern capital, nor indeed to Ulster. The whole country has been decidedly the gainer by its widespread activities in the promotion of home trade and the procuring in other markets something of that degree of recognition to which the merits of many Irish manufactures entitle them. It cannot be too often insisted upon that the Association in no sense makes the appeal *ad misericordiam*. . . . The Association takes its stand upon the only possible and practical platform, namely, that this country can produce articles of various kinds which are at least equal in quality and price to anything that trades in the marts of the world. It asks that they should not be pushed to one side and left unconsidered simply because . . . Ireland has not heretofore been considered as a serious competitor against other countries in some such article. . . . The great Exhibition which was held a few months ago in the Ulster Hall was of a somewhat startling character. It conveyed to the Ulster public some adequate conception of the extent to which Irish industries are in existence. It enabled them to see clearly that there was absolutely no reason—sentimental or economical—why many of the articles employed in daily use should be imported from abroad, when equally good value could be obtained at home, and additional work for Irish workers thereby provided. The more that lesson is inculcated alike by precept and examples, such as the exhibition alluded to, the better it will be both for producer and consumer. . . . What the Association really wants to do is to proclaim its policy in every city, town, and village in the country; aye, in every household. Its programme must be to spread the light, to advertise day in and day out. . . . All the great business concerns in the country are bound to co-operate in the programme, and to give such assistance as may be needed, for it is their interests that the Association is forwarding. . . . We have slept while others, wide awake, have hustled us out of even our own markets. It is high time to leap into activity, and cease day-dreaming; there is work to do. . . . The Industrial Association has pointed the way; it is for the people to work out their own economic salvation.—*Belfast Evening Telegraph.*

. . . We honestly believe that many of our products are the finest and the best of the kind in the world, but there are too many among us who think that, like the prophets, Irish industries should not be respected in their own country: . . . that the more goods manufactured in foreign countries that are sold in this country the better it is for our local artizans and workpeople. . . . However, this Industrial Development Association does not concern itself with theoretical, but the practical side of economics and industry. It holds that the more goods we manufacture at home the better will it be for the industries and the people of the country; that the more Irish-made goods our people consume the more employment and capital they will keep at home. . . . The Association is not a boycotting, but a competition challenging one, with the proviso that consumers should get rid of the old feeling of indifference to home products, or of preference for those that are foreign. It is because of its fair, practical character that we commend this Association and its work. . . . The real way to promote and support our industries is not to talk about the advantages of supporting Irish industries, but to go on supporting them, and having no talk about it.—*Ulster Echo.*

The Irish Press, without an exception, has invariably advocated the objects of the Irish Industrial movement, and it would be difficult to appraise the debt which the movement owes to these journals. The first President of the Cork Association, who continued to occupy that post for fifteen years, is one of the owners of a group of the principal South of Ireland newspapers. It was largely due to his (Mr. George Crosbie's) disinterested and unostentatious assistance, in very many ways, that the movement progressed so rapidly in its early days. At that time, when an influential Press campaign was all important, he successfully exerted his influence with the owners and editors of other Irish newspapers to interest them in the work of the Industrial Associations, and he gave the present writer, who was then Secretary of the Cork Association, *carte blanche* to publish in the newspapers under his (Mr. Crosbie's) control as much industrial matter as he deemed desirable. It is but the merest justice to bear testimony to Mr. Crosbie's invaluable services to this movement, and the opportunity which now presents itself of doing so is one of which the present writer gladly avails himself.

2. THE IRISH NATIONAL TRADE MARK



The history of the Irish National Trade Mark is of more than passing interest, for the reasons that it was the first national trade mark instituted by any country in the world; that it continued to be the only one up to about three years ago; and that, even at the present day, although numerous projects for the establishment of national trade marks elsewhere have been mooted from time to time, France is the only other nation that has succeeded in following Ireland's lead.

The adoption by Ireland of its national trade mark arose in this manner. Sir Bertram C. A. Windle, the distinguished ex-President of University College, Cork, visited the present writer's office one day early in the year 1905, and invited him to state if certain articles which he brought with him, all of which had been guaranteed as being of Irish manufacture, were what they were represented to be. In the course of the interview Sir Bertram Windle expressed the opinion that if all Irish manufacturers were to brand their manufactures with a single distinctive trade mark, the non-expert customer would have no difficulty in recognizing these goods as being of Irish manufacture, and would not be imposed upon by unscrupulous traders who often, successfully, attempted to pass-off non-Irish goods as Irish. The suggestion was, obviously, a most valuable and practical one, and no time was lost in endeavouring to put it into practice.

The first All-Ireland Industrial Conference, presided over by the originator of this suggestion, was held in Cork on November 21 and 22, 1905. On the first day of the Conference the Earl of Dunraven proposed, Mr. John P. Boland, M.P., seconded, a number of Irish manufacturers and others supported, and the Conference unanimously passed a resolution that an Irish National Trade Mark should be established. An All-Ireland Committee was there and then appointed to carry through this project and to register themselves as a *corporate* body—a necessary preliminary—to administer and control the proposed Mark.

An Act of the British Parliament had, as it happened, been passed in the previous session permitting a body of individuals, such as the Conference had appointed, to register and administer a national trade mark; but the Act did not become operative until April, 1906.

On the day the Act came into force the Committee lodged the necessary forms with the Board of Trade, applying for the registration of the Irish National Trade Mark; on July 31, 1906, the Board of Trade registered the Committee as a *corporate* body, under the title of the Irish Industrial Development Association (Incorporated), and on December 8, of that year, the Association received the Board of Trade's Certificate of Registration of the Irish National Trade Mark. In the meantime they had received a considerable number of applications from Irish manufacturers for licences authorizing them to brand their manufactures with this Mark. The first applicant for a licence, Messrs. Hicks, Bullick & Co., Ltd., of Belfast, had sent in their application more than six months before the Association was authorized by the Board of Trade to issue licences, and that firm had the distinction of having allotted to them the register number 01. The Association commenced formally issuing licences from January 1, 1907.

Since then, about seven hundred Irish manufacturers have been authorized by the Association to apply the Mark to their manufactures. This number would have been considerably greater had not the Association instituted strict conditions governing the use of the Mark. In no case will they grant a licence unless satisfied that the cost of Irish labour in the manufacture of an article, to which it is proposed to apply the Mark, represents more than 50 *per cent* of the total cost of manfacturing the article. They deal with each application upon its merits; and, where it is practicable for the manufacturer to use only, or mainly, Irish raw materials in the manufacture of an article, the licence is granted subject to his doing so. Licences are renewable annually, and the Association has the right to revise and alter their conditions governing their issue at any time, if they deem it necessary to do so. In the event of a user of the Irish Trade Mark misapplying the Mark, he is liable to prosecution and to be deprived for all time of the right to use the Mark. It is evidence of the scrupulous manner in which users have conformed to the regulations governing the use of the Mark that in the thirteen years during which they have issued licences the Association have had to institute proceedings only on three or four occasions against users and to cancel the licences issued to them.

It would be very easy for me to give the reader an abundance of *data* showing the value which Irish manufacturers have derived from applying the Mark to their manufactures, but being faced with the fact that I am directly interested in the administration of the Mark, and that, therefore, the sceptical reader might, justly, prefer the evidence of those competent to give a more detached opinion, I shall content myself with referring him to the references made to this subject in the Report of the Tariff Commission, excerpts from which appear earlier in this chapter, and also to the excerpt from an article which appeared in the *Times*, and which will be found embodied herein in the chapter on the Irish Flour-Milling Industry. This latter article was unsigned, but I am reliably informed that it was written by a leading Irish flour miller.

The Gaelic inscription which is embodied in the Irish Trade Mark, translated into the English language, reads, *Made in Ireland*.

In addition to owning and administering the Irish Trade Mark, the Council of the Association have full power to institute legal proceedings against persons, in any part of the world, detected falsely applying the Irish Trade Mark or any other Irish design or title to goods other than of Irish manufacture, or detected falsely describing or guaranteeing non-Irish goods as Irish. Some idea of the extent to which these practices have been indulged in and the check that has been put upon such indulgences by the activities of the Association may be gleaned from a perusal of the list of legal and other actions taken by the Association up to the end of the year 1919, particulars of which will be found in Appendix VI (see pp. 308-315).

These two functions—the administration of the Irish Trade Mark and the institution of legal proceedings—are the special prerogatives of the Irish Industrial Development Association (Incorporated), as distinct from the local Industrial Development Associations, but the Irish Association's functions do not end with these. They extend to the utilization of every useful means of fostering and extending Irish industries. Whilst each of the Associations is independent of the others, thus stimulating local initiative and friendly competition, they co-operate with each other whenever the need for so doing arises, and they work together on the most friendly terms.

The reader will be able to form a fair idea from the contents of this chapter as to the history of the modern Irish industrial movement. A great deal more might be written on the subject, all of which would go to prove that the movement has won the support of a vast number of Irish men and women of different shades of thought upon other subjects; that it has considerably benefited Irish industry; that in some of its features it has set headlines to be copied by other countries; that it has developed on sound business lines, and that it is now a firmly established vigorous plant. This is a record of which Ireland has no reason to feel ashamed.

CHAPTER XVI

CONCLUSION

THE foregoing pages represent an attempt to depict the modern history and present position of certain manufactures and other factors which, collectively, constitute the fabric of Ireland's industrial economy. I have tried to make each chapter self-explanatory and self-contained. I shall not, therefore, risk wearying the reader by gathering together and analysing the various threads of the narrative. Instead, I shall confine my concluding remarks to a setting forth of what I believe to be the main causes responsible for the arrested development of Irish trade and industry.

The deeper one dips into the economic history of Ireland, and the more intimately one becomes acquainted with the present-day influences affecting Irish trade and industry, the more clearly one realizes that the causes operating throughout to prevent the free play of Irish genius and enterprise are, in the main, external. No evidence is to be found of an inherent incapacity in Irishmen which prevents them from coping with and surmounting economic difficulties. Only when their feet have been manacled have they failed to keep pace with their competitors.

The multitude of Controls instituted by the British Government during the war years were, with few exceptions, used often in a subtle but nevertheless effective manner to bring Irish industries to a standstill. It may be argued that they also prevented many British industries from pursuing their regular course. True, but did they bring these latter industries to a standstill? On the contrary, they resulted in switching them on to munition or other war-work, which they were able to procure in abundance and on profitable terms. In many cases larger numbers of British workpeople were employed in them than previously; the workpeople received higher rates of pay, and the employers were enabled to amass enormous fortunes for themselves. This was not the case with Irish industries. The brief account I have given in Chapter XI, and the official returns of Government contracts placed in Ireland during the war years, clearly demonstrate the distinction that was made between British and Irish manufacturers. Further, whilst most of the Government controls were administered by men directly interested in the British industries concerned, in no instance did a representative of an Irish industry occupy any administrative position of the kind. Numerous examples might be quoted of the differentiation made by the Food Control in the prices paid for Irish and British produce, always to the detriment of the Irish producer.

A typical example of the treatment meted out to Irish manufacturers by a British Government Department will help to enlighten the reader concerning this subject. In November, 1916, the present writer, together with several Irish manufacturers, waited upon a leading official of the Trench Warfare Branch of the Ministry of Munitions, in London. This branch was responsible for the placing of orders for a large variety of articles, totalling many millions of pounds sterling annually. Up to that period the Branch had placed no orders in the Southern Area of Ireland. The result of the interview was as follows: The official informed us that they did not know where to turn to procure their requirements; that he would immediately send us a list of all the articles they were interested in procuring; we to reply giving him the names and addresses of Irish manufacturers competent to supply as many of these articles as could be made in Ireland; he would then, without further delay, despatch an expert engineer to Ireland to report to him concerning these firms. The firms satisfactorily reported upon were to be given every opportunity to undertake Government contracts. We returned to Dublin and awaited receipt of the promised list of requirements. A fortnight passed, but no list reached us; we wrote reminding the official of his promise, in reply we received a formal acknowledgment of our letter. Another few weeks passed, but still no list arrived. Again we wrote, and this time received a reply stating that the Department had placed contracts for the full amount of its requirements, and would not need to avail itself of the services of Irish firms. Realizing that some subtle agency was responsible for the action of this Branch, we requested the Dublin Area Office of the Ministry of Munitions to report the matter to the director of Area Organization—one of the chief administrative officials—in London, and to ask him for an explanation of this transaction. The Area office received a reply stating that the Trench Warfare Department had informed him that their instructions were not to place contracts in the Southern Area of Ireland.

Similar treatment was meted out to this Area by the Air Board. At a time when the British Army was, admittedly, insufficiently supplied with aeroplanes, a group of manufacturers in the South of Ireland undertook to capitalize and equip an extensive factory in Dublin, and to produce, on equal terms with British firms, as many aeroplanes as the Air Board would place contracts with them for. Despite a long-drawn-out correspondence and agitation, aided by a number of important Irish public men, the only response received to this offer was that the Air Board's requirements were fully met.

The war years provided a searching test of the British Government's interest in Irish trade and industry. Never before were they so hard pressed to procure supplies of all kinds ; the very existence of the nation depended upon their being able to obtain these supplies in ever-increasing quantity. Despite this fact, the industrial resources of Ireland, existing and potential, were left untapped, except so far as persistent agitation on the part of organizations in Ireland caused Government Departments, occasionally, to throw them a few crumbs in the form of small contracts.

To pass to another aspect of this subject. During and since the war the Government appointed a considerable number of Committees to inquire into and report on a variety of subjects connected with trade and industry. In very few cases did they appoint even one representative of Irish industrial interests to act upon any of these committees.

As a result of representations made by them to Mr. Asquith when he was Prime Minister, the All-Ireland Munitions and Government Supplies Committee succeeded in getting their Chairman (Mr. John O'Neill) appointed a member of Lord Balfour of Burleigh's Committee on Commercial and Industrial Policy after the War. The Committee had sat from July until October, 1916, without any representative of

Ireland being appointed a member. Simultaneously with Mr. O'Neill's appointment, a second Irish representative was appointed, to represent Ulster; and, shortly afterwards, at the request of the late Mr. John Redmond, a member of the then Irish Parliamentary Party was added to the Committee. This latter gentleman went on a mission to the U.S.A. during the time the Committee was in existence, and so ceased to take part in its proceedings. Here was a committee charged with the duty of examining into and advising the British Government on the commercial and industrial policy to be adopted after the war; it sat for over a year, and took evidence from a considerable number of representatives of various British interests, but I think I am correct in stating that it did not invite a single Irish industrial or trade organization to supply it with information concerning Irish trade and industrial problems. So far as its proceedings were concerned, it totally ignored these problems. Mr. O'Neill, in consequence of this action, found himself unable to sign the Report[1] which the Committee sent to the Government, and instead handed in a Memorandum, which is embodied in the document, giving his reasons for so doing.

This instance typifies the attitude adopted by practically every committee appointed by the Government to inquire into matters concerning the development of trade and industry. It is an exceptional case where one of these committees has devoted any attention whatsoever to Irish trade and industrial problems.

This treatment was commented upon some time ago by Mr. W. A. S. Hewins, ex-Unionist M.P., and sometime Under-Secretary of State for the Colonies, who, when Director of the London School of Economics, wrote as follows :—[2]

> . . . Ireland is, in fact, recognized as a standing exception to the economic generalizations which we so freely apply to England, and when we discuss the probable effects of a change in British policy we rarely, if ever, take account of Ireland.

The next group of authorities whose statements I shall cite consists, as the reader will note, of gentlemen holding widely different political views.

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[1] Cd. 9035. Price 9d., 1918.

[2] In the Preface to Dr. A. E. Murray's book—*A History of the Commercial and Financial Relations Between England and Ireland from the Period of the Restoration;* 1903: page 8. This most valuable work is now out of print.

In the course of an interview[1] given by Lord French, Lord-Lieutenant of Ireland, to a representative of the (London) *Daily Express*, Lord French was reported as stating: "One cannot spend £20 without having Whitehall's permission."

Mr. Arthur Griffith, the Sinn Fein leader, has on several occasions published a signed article[2] from which the following excerpts are taken :—

> In July, 1907, the Managing Director of Kynoch's wrote to me stating that the chairman of that company had read something of what I had written on Irish affairs, particularly on industrial conditions in Ireland, and that he was anxious to discuss the matter of industrial development in Ireland. I met Mr. Arthur Chamberlain, chairman of Kynoch's, and Mr. Cocking, the manager, by arrangement at the Shelbourne Hotel in Dublin. We had three interviews—at each of which I was accompanied by a friend of mine, a Dublin man of business. Mr. Chamberlain opened by saying, . . . as chairman of Kynoch's, he had caused that firm to have something that might be called a private Industrial Survey of Ireland made. The result was to satisfy him as a business man that Ireland was one of the richest countries in the material of great industries, that her people had a great natural aptitude for commerce and manufacture, and that nothing but ignorance, lack of capital, or repressive government, stood in the way of making her a great industrial and commercial State. . . . Mr. Chamberlain replied that . . . it was a definite part of English policy to prevent any serious industrial or commercial development in Ireland. . . . Mr. Chamberlain replied by detailing the history of the Kynoch branch in Arklow, and the efforts made by the Government of Mr. Balfour and the Government of Sir Henry Campbell-Bannerman to force the firm to shut down the branch. Finally, to compel Kynoch's to leave Ireland, Government contracts were removed. Mr. Chamberlain described a somewhat lively interview he had recently had with Mr. Herbert Gladstone, now Lord Gladstone, in which that Minister told him definitely that if the Arklow factory were continued, the Government would see that as little Government work as possible would be given to Kynoch's. On the other hand, the Government offered no objection to Kynoch's establishing themselves in *any part of the Empire except Ireland*, and the fullest support was offered to the Kynoch branch in South Africa.

[1] *Daily Express*. April 7, 1920.

[2] *Nationality*, July 31, 1915, and February 23, 1918.

In the course of the occupancy of Mr. Edward Shortt, M.P., of the post of Chief Secretary for Ireland, a couple of years ago, he, too, learnt something of the extent of Ireland's dormant industrial resources, and he had plans prepared for developing some of these potential sources of national wealth. The result of his labours was related by Mr. Shortt himself to a deputation of Irish business men, at which interview the present writer attended, and of which he therefore writes from first-hand knowledge. Mr. Shortt informed the deputation that, despite all the trouble he had taken to do something practical in the way of utilizing certain Irish industrial resources, the British Treasury had vetoed his proposals. He still believed that, ultimately, he would succeed in gaining his point, but soon afterwards he ceased to be Chief Secretary for Ireland, and nothing more has been heard of the proposals. On a previous occasion Mr. Shortt assured another delegation of Irish business men that, if they wanted to get anything from a British Government Department, their only chance of doing so was to make themselves *utterly obnoxious*, and that unless they adopted this course their claims would receive no attention.

Not so many years ago Sir Horace Plunkett, when Vice-President of the Department of Agriculture and Technical Instruction for Ireland, realizing the possibility of developing a fruit-bottling and vegetable-preserving industry at Drogheda, in Co. Louth, sanctioned payment, out of the Department's funds, of a small sum of money to help this little industry over the initial period during which its workpeople were acquiring technical training. No sooner was this fact known than a number of cross-channel firms, engaged in the fruit-preserving industry, brought pressure to bear on the Government in England to compel the Department to discontinue assisting this Irish industry. Despite his protestations, the Government compelled Sir Horace Plunkett to withdraw all financial aid from the Irish industry, which, having this aid withdrawn at a critical moment, before it had its workpeople technically trained, was unable to survive.

During the war years, when the Government were utilizing every resource in their power to compel farmers to extend tillage operations and increase the home production of crops, Messrs. Henry Ford & Co., of Detroit, U.S.A., decided to erect an extensive factory in Cork for the manufacture of farm-tractors, the available supplies of this implement being inadequate to meet agricultural requirements. Immediately a chorus of protest arose in the pages of various British Machinery, etc., Trade Journals, against the Government giving this firm any facilities for proceeding with their project of establishing an industry in Ireland. The reader will remember that at that time the Government controlled raw materials and shipping, and consequently possessed complete power to facilitate or retard the establishment of any new industry. Messrs. Ford purchased a considerable tract of land in the City of Cork, and completed the preliminary arrangements for proceeding with the scheme. But the fact remains to be stated that they were not given the necessary shipping and other facilities to enable them to commence manufacturing. It is only recently, in the early part of 1920, that the industry has been able to get properly underweigh.

Contracts for the erection of large numbers of military huts, and other buildings, required in Ireland for Government purposes during the war years, were given, without competition, to English firms, despite the fact that numerous Irish firms were prepared to compete for these contracts. The recent Government contract for the building of a railway connexion between the Castlecomer Collieries in Co. Kilkenny and the G.S. & W. Railway was likewise handed over to a London firm, no Irish contractor being allowed to tender for the work.

During the period in which the Government controlled supplies of flax, discrimination was made in respect to the prices paid to the Irish growers (I have dealt with this matter in the chapter relating to the Linen Industry), as well as in the quantities allocated to British and Irish spinners—in both cases to the detriment of Irish industrial interests.

Early this year (1920) a document was issued in London, for private circulation, which detailed the constitution of the projected Butter and Cheese Importers' Association of Great Britain. This document stated, *inter alia*, that the objects of the Association are:

> To carry on the present functions of the Butter and Cheese Import Committee (a Government committee), which shall be dissolved, and to purchase from exporting countries, and distribute within Great Britain, supplies of butter and cheese. . . . The Association shall be established by charter. . . . *There-*

shall be no representative of Irish traders in the Association for the time being. . . . The Board of Management shall consist of—(1) the seven members of the existing Butter and Cheese Import Committee; (2) three members elected by the General Meeting of members of the Association; (3) two or three members representing consumers, nominated by the Ministry of Food or other Government Department; (4) one or two representatives of the Co-operative movement; and (5) a representative of each of the High Commissioners for Australia, New Zealand and Canada. . . . The Association is to have the sole right to import butter and cheese into Great Britain from foreign countries, the Dominions and Ireland, and to distribute them to the British consumer at a price *to be agreed upon from time to time with the Ministry of Food or other Government Department.*

It will be seen from the foregoing that this Committee proposes, so far as Ireland is concerned, to obtain control of all Irish butter and cheese exported to Great Britain, and decrees that *there shall be no representative of Irish traders in the Association for the time being.* Up to the time of writing the organizers of the project have not come out into the open. They probably feel, with Pope, that the better course is *to do good by stealth.*

The subject of Ireland obtaining control of her own Customs and Excise, and having the right to decide for herself what her internal and external economic policy shall be, has received active consideration for some years past. This is not a party-political question. Representatives of practically every political party in Ireland are convinced of its vital importance. The present writer has in his possession a document, signed by, amongst others, a number of most prominent Irish Unionist manufacturers, declaring that:

> The undersigned wish to record their opinion that in any new scheme for the self-government of Ireland the Irish Parliament should control the fixing and levying of Customs duties, on the following amongst other grounds:—
>
> That without such power it would be impossible for the Irish Parliament to manage its finances satisfactorily, or to ascertain and secure for Ireland her true and full revenue.
>
> That control of Customs duties is necessary to develop the particular resources of the country, and to meet its particular industrial views.
>
> That a Customs tariff fixed by a British Parliament in which Ireland would have a reduced representation, or none, would

be unlikely to regard the special financial and other needs of Ireland, and might be injurious to her special interests.

That no scheme which deprived Ireland of control of an important field of revenue would be accepted by the bulk of the Irish people, or have any finality.

The Home Rule Act, of 1914, withheld such control from the proposed Irish Parliament. In one of his letters to[1] Sir Horace Plunkett during the time the Irish Convention was sitting, the Prime Minister (Mr. Lloyd George) stated :

"*The Government feel that this* (the question of Customs and Excise) *is a matter which cannot be finally settled at the present time.*" Two years later, another Bill has been introduced into Parliament, to rescind the 1914 Home Rule Act, which had never become operative, and, so the title of the Bill states, *to provide for the better Government of Ireland.* In this, the latest of these proposals, the control of Irish Customs and Excise as well as Irish economic policy are all reserved to the British Government.

Vague promises are held out from time to time by British Ministers, in their public declarations, that at some unspecified time Ireland may be given control of these matters—matters which are vital to the economic growth of a country—but in private conversation these same gentlemen do not hesitate to assure one that, so long as the reins of Government remain in their hands, Ireland will never be given such powers.

The foregoing do not by any means exhaust the catalogue of instances that might be cited as proof of the consistent British policy of repressing Irish trade and industry.

The late Lord Dufferin epitomized the subject when he wrote : [2]

> From Queen Elizabeth's death until within a few years of the Union the various commercial confraternities of Great Britain never for a moment relaxed their relentless grip on the trades of Ireland. One by one each of our nascent industries was either strangled in its birth, or handed over gagged and bound to the jealous custody of the rival interest in England, until at last every fountain of wealth was hermetically sealed, and even the traditions of commercial enterprise have ceased through

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[1] Letter addressed from 10, Downing Street, London, on February 25, 1918. See *Report of the Proceedings of the Irish Convention*, p. 20, (Cd. 9019.)

[2] *Irish Emigration and the Tenure of Land in Ireland.*

desuetude. What has been the consequence of such a system, pursued with relentless pertinacity for 250 years? This: that, debarred from every other trade and industry, the entire nation flung itself back upon "the land," with as fatal an impulse as when a river whose current is suddenly impeded, rolls back and drowns the valley it once fertilized.

But I may be told this frantic clinging of the Irish to the land is natural to their genius, and not a result of commercial restrictions. History supplies the perfect refutation of such a theory. Though the hostile tariff of England comprehended almost every article produced in Ireland, one single exception was permitted. From the reign of William III the linen trade of Ireland has been free; as a consequence, at this day Irish linens are exported to every quarter of the globe, and their annual value nearly equals half the rental of the island.

Many attempts were made by the rival interests in England to deprive us of this boon, and in 1785 a petition—signed by 117,000 persons—was presented by Manchester, praying for the prohibition of Irish linens, but justice and reason for once prevailed, and the one surviving industry of Ireland was spared. How has it repaid the clemency of the British Parliament? By dowering the crown of England with as fair a cluster of flourishing towns and loyal centres of industry as are to be found in any portion of the Empire. Would you see what Ireland might have been, go to Derry, to Belfast, to Lisburn, and by the exceptional prosperity which has been developed, not only within a hundred towns and villages, but for miles and miles around them, you may measure the extent of the injury we have sustained.

Had it been possible, I should have preferred to close this work without referring to a subject of a quasi-political character. But it is impossible to treat truthfully of the underlying causes preventing Ireland from progressing economically without touching upon such matters. Personally, I have had no connexion with any political party in the eighteen years during which I have been associated with the Irish industrial movement, nor have I, at any time, distinguished between the industrial interests of various localities in Ireland.

This eighteen years' intimate experience in dealing with Irish economic problems has brought me into touch with every aspect of the subject, and has dispelled from my mind any previous beliefs I held as to the possibility of Ireland growing to full industrial maturity under existing conditions. There is no hope whatsoever of her doing so until such time as she is free to determine her own economic policy. I have, occasionally, discussed this subject with members of the British Government, and cannot recall an instance where these gentlemen have disputed my argument. The attitude of those who hold the reins of government of this country, in acquiescing in the truth of an argument such as this and, nevertheless, continuing to restrict the free-play of Irish talent in the development of Ireland's industrial resources, makes one ponder the words of the English poet who wrote:[1]

> " All fades "—
> —and with the word the moonlight died :
> From out the pool vanished the glimmering wonder :
> And Odin's soul returned. Amazed, he said :
> " Lo, then, a subject world ! "—" Nay "—Wyrd replied,
> " Not subject lands, O Odin—sisters, daughters :
> Brethren the sons by all the Britains bred."
> Long mute he mused, then : " Will the Empire stand ? "
> And, with the hum, like voice of rushing waters,
> Wyrd's fateful accents mingled : " Theirs to choose.
> If greed for riches overrun the land,
> If, drunk with power, they rot in luxury,
> If, slack of soul, reverence for duty lose
> And rule by force, they too will pass away :
> If rich and poor, in mutual loyalty,
> Labour as willing tools of the Most High,
> Weaving about the world, not Cæsar-sway,
> But a shining net of folk—a happy land
> Of brother-nations linked in amity—
> A mighty brood of peoples just and free—
> If thus they choose, their power benign shall stand."

When one considers the full significance of this British policy of repressing Irish industry, and links to it the additional menace to Irish trade and industry represented by the continually increasing number of British trusts and combines, an octopus-like growth, whose claws have already grasped control of several important Irish industries and whose plans are matured for the destruction of many others—surely, one is justified in claiming that the causes responsible for the past decline and present backwardness of Irish trade and industry are not internal but external.

We have in Ireland all the resources necessary to build up a thriving community ; endless proof is available of the ability of Irishmen to cope successfully with economic problems; our workpeople are comparable with those of any other nation, both in regard to skill and intelligence; all that we lack to enable us to take our proper place among the prosperous nations of the world is the power to determine our own economic policy. Until that right is granted us it is unfair to place the blame for her present industrial condition at Ireland's door.

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[1] *The Song of Alfred.* By H. Orsmond Anderton. London: (Constable). 1912, Canto VI : pp. 196–197.

APPENDIX I

TABLE SHOWING THE QUANTITY OF FISH IMPORTED INTO IRELAND IN THE YEARS 1904 TO 1918.

	QUANTITY—CWTS.			
Year	Herrings Fresh	Herrings Cured	Fish Dried	Fish Preserved
1904	6,702	100,026	53,266 (*a*)	
1905	10,907	79,093	73,987	
1906	7,517	58,174	76,009	17,369
1907	18,395	83,315	67,567	19,071
1908	26,709	68,991	68,597	19,736
1909	26,812	63,429	79,648	18,243
1910	19,292	47,701	74,966	17,893
1911	23,828	34,514	68,515	18,976
1912	14,713	25,034	77,414	13,044
1913	17,067	39,405	82,573	16,190
1914	15,110	48,828	83,297	27,473
1915	3,088	21,665	51,285	30,928
1916	1,595	9,883	42,504	37,759
1917	6,439	51,245	35,909	25,889
1918	12,400	66,437	25,570	19,562

	QUANTITY—CWTS.			
Year	Fish Fresh	Fish unclassified	Oysters	Shell Fish unclassified
1904	115,401 (*a*)		10,613	1,458
1905	128,357		7,265	1,658
1906	105,978	16,907	7,816	2,144
1907	103,462	18,314	4,840	1,907
1908	116,869	16,099	5,245	2,026
1909	134,016	45,003	4,433	2,172
1910	154,304	31,978	4,583	2,324
1911	152,027	30,889	10,943	2,939
1912	138,064	40,622	4,864	2,494
1913	120,023	34,758	5,518	2,461
1914	123,256	32,399	9,430	1,620
1915	79,633	17,047	3,576	676
1916	66,970	12,419	6,718	413
1917	53,648	13,207	6,737	452
1918	28,828	4,155	227	1,669

(*a*) Not recorded separately prior to 1906.

APPENDIX I—*continued.*

TABLE SHOWING THE VALUE OF FISH IMPORTED INTO IRELAND IN THE YEARS 1904 TO 1918.

VALUE £				
Year	Herrings Fresh	Herrings Cured	Fish Dried	Fish Preserved
1904	2,792	75,020	64,585 (*a*)	
1905	4,545	59,320	89,709	
1906	3,132	43,631	76,009	21,060
1907	7,665	62,486	67,567	23,124
1908	11,129	51,743	68,597	23,930
1909	11,172	47,572	79,648	22,120
1910	8,038	35,776	74,996	21,695
1911	9,928	25,886	68,515	23,008
1912	6,130	18,776	77,414	15,816
1913	6,827	15,762	119,731	25,297
1914	6,422	21,973	124,946	45,330
1915	2,625	10,833	92,313	92,784
1916	1,595	10,624	81,820	122,245
1917	7,083	40,996	150,818	84,139
1918	14,570	53,150	127,850	88,029

VALUE £				
Year	Fish Fresh	Fish Unclassified	Oysters	Shell Fish unclassified
1904	105,784 (*a*)		6,386	1,696
1905	117,661		4,359	1,927
1906	92,287	15,498	4,690	2,492
1907	90,098	16,788	2,904	2,217
1908	101,773	14,757	3,147	2,355
1909	116,706	41,253	2,660	2,525
1910	134,373	29,313	2,750	2,702
1911	132,390	28,315	6,566	3,417
1912	120,231	37,237	2,918	2,899
1913	120,023	31,862	3,311	2,861
1914	154,070	32,399	5,187	2,025
1915	207,046	40,060	2,235	845
1916	184,168	29,806	4,703	516
1917	147,532	33,018	5,726	678
1918	89,367	10,388	193	2,504

(*a*) Not recorded separately prior to 1906.

APPENDIX I.—*continued.*

TABLE SHOWING THE QUANTITY OF FISH EXPORTED FROM IRELAND IN THE YEARS 1904 TO 1918.

QUANTITY—CWTS.							
Year	Herrings Fresh	Herrings Cured	Mackerel Fresh	Mackerel Cured	Mackerel unclassified	Salmon and Trout.	Eels, Fresh-water
1904	48,516	36,277	42,791	66,157	150,311	16,593	2,431
1905	28,508	100,204	57,361	33,117	62,774	17,821	2,874
1906	19,209	113,248	13,533	20,091	95,045	18,723	3,286
1907	17,234	92,238	11,105	34,947	78,308	14,746	9,898
1908	20,448	126,171	30,843	64,116	46,334	16,932	9,452
1909	59,874	254,491	20,889	87,042	49,875	34,128	8,785
1910	100,771	205,047	16,478	112,720	53,527	19,614	9,361
1911	99,019	331,493	7,249	76,774	40,711	26,039	9,971
1912	89,635	536,919	9,877	97,617	46,534	17,435	6,005
1913	55,781	159,023	11,151	48,853	44,501	11,979	2,840
1914	74,874	85,250	21,953	81,386	13,922	24,200	4,682
1915	165,050	84,392	27,661	17,321	73,574	25,058	13,034
1916	154,805	70,962	37,849	34,391	73,744	16,823	5,880
1917	110,023	49,025	20,910	80,268	211,843	15,741	5,726
1918	83,358	20,906	98,667	68,664	255,151	12,197	3,950

QUANTITY—CWTS.						
Year	Fish, unclassified	Mussels	Oysters	Lobsters	Winkles	Shell Fish unclassified
1904	71,392	27,112	3,242	1,949	6,658	41,853
1905	42,913	30,635	15,377	3,558	5,780	50,588
1906	111,333	25,938	10,683	3,177	5,835	52,938
1907	74,314	14,074	7,958	3,418	9,297	55,462
1908	53,589	14,376	8,856	2,684	12,243	57,163
1909	68,442	13,327	8,309	6,785	12,064	49,780
1910	71,582	19,971	8,412	7,592	11,093	42,361
1911	56,444	25,620	6,622	5,744	10,026	53,672
1912	58,896	26,679	9,056	9,871	7,747	49,623
1913	50,548	20,650	4,383	13,938	11,926	42,832
1914	82,876	15,784	4,934	9,640	8,972	42,807
1915	43,086	15,326	6,096	6,081	5,473	46,596
1916	72,304	14,378	3,766	4,777	6,512	39,438
1917	109,829	29,413	5,910	2,999	13,322	33,858
1918	104,087	36,484	574	3,377	13,270	27,416

APPENDIX I.—*continued.*

TABLE SHOWING THE VALUE OF FISH EXPORTED FROM IRELAND IN THE YEARS 1904 to 1918.

	VALUE £						
Year	Herrings Fresh	Herrings Cured	Mackerel Fresh	Mackerel Cured	Mackerel unclassified	Salmon and Trout	Eels, Fresh-water
1904	24,258	36,277	19,256	49,618	90,187	92,921	8,508
1905	14,254	100,204	25,812	24,838	37,664	99,798	10,059
1906	9,605	113,248	6,090	15,068	57,027	104,849	11,501
1907	8,617	92,238	4,997	26,210	46,985	82,578	34,643
1908	10,244	126,171	12,337	48,087	27,800	94,819	33,082
1909	29,937	254,491	8,356	65,282	29,925	191,117	30,748
1910	50,386	205,047	6,591	78,904	32,116	109,838	32,764
1911	49,510	331,493	2,900	53,742	24,427	145,818	34,899
1912	44,818	536,919	3,951	68,332	27,920	97,636	21,018
1913	25,101	98,064	4,879	26,869	21,693	72,673	9,940
1914	37,437	52,571	10,977	48,832	6,961	147,620	15,217
1915	165,050	88,612	20,054	16,455	57,020	144,084	52,136
1916	178,026	78,058	35,957	34,391	66,370	113,555	29,400
1917	137,529	45,348	26,138	88,295	243,619	121,993	34,356
1918	111,144	19,338	125,800	102,996	350,833	182,685	34,168

	VALUE £					
Year	Fish, unclassified	Mussels	Oysters	Lobsters	Winkles	Shell Fish unclassified.
1904	62,171	3,050	4,863	7,796	1,498	9,417
1905	37,370	3,446	23,066	14,232	1,300	11,382
1906	96,952	2,918	16,025	12,708	1,313	11,911
1907	64,715	1,583	11,937	13,672	2,092	12,479
1908	46,667	1,617	13,284	10,736	2,755	12,862
1909	59,602	1,499	12,464	27,140	2,714	11,201
1910	62,336	2,247	14,841	26,572	2,496	9,531
1911	49,153	2,882	8,222	20,104	2,256	12,076
1912	51,289	3,001	12,930	34,549	1,743	11,165
1913	44,019	2,323	7,426	62,721	2,683	9,637
1914	74,588	1,776	5,690	38,560	2,019	9,632
1915	64,629	2,107	6,690	28,885	1,459	12,814
1916	108,456	2,696	4,259	22,691	1,737	10,845
1917	247,115	6,986	7,638	14,995	4,663	11,850
1918	234,196	9,121	783	16,885	5,972	14,393

APPENDIX II

LIST OF IRISH LINEN TRADE ORGANIZATIONS

INDUSTRIAL COUNCIL OF THE IRISH LINEN TRADE

The Flax Control Board.
The Flax Supplies Committee.
The Flax Society, Ltd.
Linen Industry Research Association.
Irish Linen Society.

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RAW MATERIAL

The Flax Supply Association.
Flax Mill Owners' Association.

* * * * *

SPINNING

The Flax Spinners' Association.

* * * * *

WEAVING

Power-Loom Manufacturers' Association.
Cambric Manufacturers' Association.
Coarse Goods Manufacturers' Association.
Damask Association.

BLEACHING AND DYEING

Yarn Bleachers and Dyers' Association.
Bleachers and Finishers' Association.
Irish Dyers and Finishers' Association.
Hydraulic Mangle Finishers' Association.

* * * * *

MAKING-UP

Federation of Making-up Trades, (Ireland), including:
The Irish Wholesale Clothing Manufacturers' Association.
The Belfast Shirt and Collar Manufacturers' Association.
Handkerchief and Embroidery Association.
Belfast Apron, Overall, Blouse, and Underclothing Manufacturers' Association.
Trade Hemstitchers' Association.

* * * * *

SELLING

Linen Merchants' Association.
Cambric Manufacturers' Association (Merchanting).
Household Linen and Piece Goods Association.
Canvas, Holland, and Buckram Association.
Handkerchief and Embroidery Association (Merchanting).

APPENDIX III

TOTAL OUTPUT IN TONS OF MINERALS AND TOTAL NUMBER OF PERSONS EMPLOYED AT IRISH MINES AND QUARRIES IN EACH OF THE FOLLOWING YEARS.

Year	Antimony Ore	Barium (Compounds)	Bauxite	Bog Ore	Chalk	Chert Flint, etc.
1909	—	2,511	9,500	2,676	—	6
1910	—	7,447	3,792	2,562	—	2,161
1911	—	8,662	6,007	2,700	—	1,163
1912	—	13,190	5,790	3,340	—	1,129
1913	—	13,289	6,055	3,835	—	1,222
1914	—	13,384	8,286	2,342	186,521	1,063
1915	—	17,937	11,723	1,986	162,928	583
1916	—	15,329	10,329	1,095	161,466	945
1917	—	11,936	14,724	1,736	153,024	1,843
1918	1	8,123	9,589	603	155,313	2,102

Year	Clays	Coal	Copper Ore	Gravel and Sand	Gypsum	Igneous Rocks
1909	120,338	89,392	570	83,249	—	325,194
1910	132,400	79,802	1,446	81,784	—	359,370
1911	124,460	84,564	820	83,025	—	384,494
1912	100,500	90,307	778	70,654	—	395,343
1913	121,294	82,521	167	102,360	—	460,127
1914	111,472	92,400	—	78,609	—	504,230
1915	61,324	84,557	—	99,718	—	421,826
1916	41,315	89,833	—	60,487	556	281,845
1917	68,453	95,646	—	82,525	—	302,002
1918	50,857	92,001	—	110,249	600	336,575

APPENDIX III—*continued.*

TOTAL OUTPUT IN TONS OF MINERALS AND TOTAL NUMBER OF PERSONS EMPLOYED AT IRISH MINES AND QUARRIES IN EACH OF THE FOLLOWING YEARS.

Year	Iron Ore	Iron Pyrites	Lead Ore	Lignite	Limestone	Manganese Ore
1909	68,002	768	—	—	568,046	70
1910	65,037	597	—	—	585,954	—
1911	56,448	1,212	—	120	562,223	—
1912	60,398	1,328	—	62	528,107	—
1913	60,014	1,840	—	81	582,851	—
1914	41,215	2,295	—	300	426,030	—
1915	39,326	1,280	—	600	343,174	—
1916	30,678	985	1	500	303,577	—
1917	54,533	749	4	900	310,926	—
1918	30,548	500	19	150	262,400	—

Year	Ochre, Umber, etc.	Salt	Sandstone	Slate	Soapstone	Zinc Ore	No. of Persons empl'yd
1909	196	48,976	36,008	5,568	—	—	4,974
1910	432	48,585	64,753	4,658	—	—	5,319
1911	669	47,532	42,121	4,588	—	—	5,469
1912	671	50,871	31,543	5,341	8	—	5,151
1913	1,005	43,391	27,984	3,483	40	—	4,862
1914	428	42,005	45,600	3,017	180	—	5,416
1915	349	32,961	46,937	2,968	750	—	4,432
1916	625	34,433	74,842	2,984	301	—	3,940
1917	1,731	35,951	61,816	1,690	1,233	16	4,063
1918	1,066	35,496	83,986	1,273	936	53	3,936

APPENDIX IV

TABLE I

RESULTS OF THE FIRST SERIES OF COMMERCIAL EXPERIMENTS IN TOBACCO-GROWING IN IRELAND

Showing the number of Experimenters and the Acreage, Yield and Prices of the finished Tobacco grown in each of the years from 1904 to 1913 inclusive. (This Table refers to the Large-scale Experiments only, no account being taken therein of experiments conducted under the Department's Small Growers' Scheme, or experiments not carried out under the Department's supervision).

Year	No. of Growers	Total Acreage acres	Total Yield lb.	Average Yield per acre lb.	Average Selling Price per lb.	Range of Prices		
						Lowest	Highest	
					d.	d.	s.	d.
1904	1	20	7,984	400	5.0	4.2		6
1905	15	33	27,860	844	4.7	2.5		9
1906	19	76½	66,893	874	4.8	2.0	1	0
1907	20[1]	88[1]	53,245[1]	605	4.3	2.0		9
1908	21	101	116,782	1,156	5.3	1.5	1	3
1909	21	133	120,285	904	5.4	1.0	1	3
1910	19	118¼	93,229	788	4.9	1.0		8.8
1911	20	119½	135,180	1,131	5.1	1.0		8
1912	20	105	72,101	686	4.3	1.0		8
1913	19	91¾	83,922	914	5.3	2.1		8.5

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[1] Particulars of the Kilkenny experiment in 1907 are not included as almost the entire crop grown on six acres, estimated at 10,400 lb., was accidentally destroyed by fire.

APPENDIX IV—*continued.*

TABLE II

RESULTS OF THE SECOND SERIES OF COMMERCIAL EXPERIMENTS IN TOBACCO-GROWING IN IRELAND.

Showing the number of Experimenters and the Acreage, Yield and Prices of the finished Tobacco grown in each of the years from 1910 to 1913 inclusive.

(This Table refers to the Small Growers (Rehandling) Experiments only, no account being taken therein of the Large-scale Experiments conducted by the Department, or Experiments not carried out under the Department's supervision.)

Year	No. of Growers	Total Acreage acres	Total Yield lb.	Average Yield per acre lb.	Average Selling Price per lb.	Range of Selling Prices	
						Lowest	Highest
					d.	d.	d.
1910	7	5⅛	4,653	906	4.0	2.3	5.2
1911	17	14	19,884	1,420	4.1	1.6	7.0
1912	54	56	42,063	751	3.7	1.6	6.0
1913	44	53¼	48,156	904	4.7	1.5	7.0

APPENDIX IV—*continued.*

TABLE III

RESULTS OF THE THIRD SERIES OF COMMERCIAL EXPERIMENTS IN TOBACCO-GROWING IN IRELAND

Showing the number of Experimenters and the Acreage, Yield and Prices of the finished Tobacco grown in each of the years from 1914 to 1918 inclusive.

(This Table refers to the Development Scheme (Rehandling) Experiments only, no account being taken therein of experiments not carried out under the Department's supervision.)

Year	No. of Growers	Total Acreage			Total Yield	Average Yield per acre,lbs	Average Selling Price per lb.	Range of Selling Prices		
		ac.	rd.	p.	lbs.			Lowest	Highest	
							d.	d.	s.	d.
1914	136	217	3	31	211,435	970	5.4	1	1	0
1915	138	225	0	18	142,990	635	6.9	2		9½
1916	118	172	0	12	68,400[1]	640[2]	6.8	2	2	6
1917	31	45	3	0	28,133	614	10.3	6	1	10
1918	63	76	1	28	58,859	770	11.2	5	2	1

[1] The produce of 65¼ acres which was destroyed by fire at Adare is not included in the total yield.

[2] The average in this column is calculated on the quantity of tobacco sold and the acreage on which it was grown. See Note [1].

APPENDIX V

VALUE OF ORDERS PLACED WITH IRISH FIRMS BY WAR OFFICE CONTRACTS DEPARTMENT FROM AUGUST 4, 1914, TO MARCH 31, 1919.

Article	Aug. 4, 1914 to Mar. 31, 1915	April 1, 1915 to Mar. 31, 1916	April 1, 1916 to Mar. 31, 1917	April 1, 1917 to Mar. 31, 1918	Apr. 1, 1918 to Mar. 31, 1919 (subject to revision)	TOTAL
	£	£	£	£	£	£
Badges and Titles	—	4,263	14	—	—	4,277
Bags, Oat	—	2,306	—	—	—	2,306
Bags, Ration	6,718	—	16,778	709	—	24,205
Bandoliers, Cotton	—	10,330	21,575	130	4,125	36,160
Baskets and Panniers	809	619	21	—	—	1,449
Bedding	10,477	106,454	127,579	135,753	12,600	392,863
Blankets	11,229	114,191	15,110	203,977	78,520	423,027
Boot Repairs	515	386	1,228	344	1,353	3,826
Boots	39,149	30,138	6,453	11,098	—	86,838
Bottoms, Wood for Clogs	—	—	183	—	—	183
Bridging Stores	6,647	3,013	250	—	—	9,910
Brooms and Brushes	5,209	3,404	11,335	15,559	4,580	40,147
Building Work	—	—	—	—	—	—
General	36,138	7,768	—	290,998	—	334,904
Hutting	602,568	97,960	1,077	—	—	701,605
Miscellaneous	6,193	19,972	158	—	—	26,323

APPENDIX V—*continued.*

Article	Aug. 4, 1914 to Mar. 31, 1915	April 1, 1915 to Mar. 31, 1916	April 1, 1916 to Mar. 31, 1917	April 1, 1917 to Mar. 31, 1918	Apr. 1, 1918 to Mar. 31, 1919 (subject to revision)	TOTAL
	£	£	£	£	£	£
Buttons	—	39	—	—	—	39
Candles, Paraffin	—	1,480	1,724	795	12,576	16,575
Catgut	—	—	—	78	—	78
Cloth	148,432	172,300	166,054	502,901	258,586	1,248,273
Clothing, Discharged Soldiers'	—	825	14,504	6,150	29,400	50,879
,, Hospital	20,193	91,264	27,351	48,622	184,575	372,005
,, Miscellaneous	—	8,194	27,031	31,242	153,334	219,801
,, Service Dress	161,739	157,352	146,789	58,115	736,149	1,260,144
Combs, Hair	—	150	329	—	—	479
Cordage	5,297	12,693	22,709	75,577	183,713	299,989
Cotton & Linen Goods	68,259	208,148	772,614	1,288,126	1,869,347	4,206,494
Duck, Tent	2,100	264,085	49,114	280,725	140,157	736,181
Earthenware	—	—	842	—	—	842
Equipment	1,430	8,305	3,027	—	—	12,762
Felt Roofing and Accessories	—	—	567	—	90,086	90,653
Flannel	—	103	3,741	5,400	10,372	19,616
Works Table	—	2	—	—	—	2
Furniture	—	706	32	2,212	—	2,950
Grass Seed	—	1,530	—	—	—	1,530
Grindery	—	700	—	—	—	700

APPENDIX V—*continued.*

Article	Aug. 4, 1914 to Mar. 31, 1915	April 1, 1915 to Mar. 31, 1916	April 1, 1916 to Mar. 31, 1917	April 1, 1917 to Mar. 31, 1918	Apr. 1, 1918 to Mar. 31, 1919 (subject to revision)	TOTAL
	£	£	£	£	£	£
Harness & Saddlery	5,096	24,691	—	—	—	29,787
Hay	65,975	—	—	—	—	65,975
Holdalls	—	—	—	—	10,344	10,344
Hose & Hose Unions	5	24,921	—	16,719	—	41,640
Hosiery	279,581	430,575	66,975	945,428	91,251	1,813,810
Ironware	—	145	—	58	—	203
Jars, Stoneware	540	527	—	63	1,410	2,540
Kitchens, Travelling	—	1,351	550	—	—	1,901
Knives, Clasp	—	657	—	—	—	657
Leather	—	—	31,326	38,246	247	69,819
Leather Goods	—	1,265	—	—	—	1,265
Masks, Machine Gunrs.	—	160	—	—	—	160
Matches	—	2,463	12,882	—	—	15,345
Medical and Surgical Stores	—	9,693	—	3,655	6,042	19,390
Methylated Spirit	—	—	—	99	128	227
Nets, Hay	—	—	2,594	—	—	2,594
Oats	—	85,245	241,158	359,741	64,147	750,291
Polishes	—	71	56	—	417	544
Provisions	692,454	1,420,542	872,375	95,050	49,594	3,130,015
Razors	—	2,125	—	—	—	2,125
Rubbers, Horse	—	2,328	2,338	5,352	—	10,018

APPENDIX V—*continued.*

Article	Aug. 4, 1914 to Mar. 31, 1915	April 1, 1915 to Mar. 31, 1916	April 1, 1916 to Mar. 31, 1917	April 1, 1917 to Mar. 31, 1918	Apr. 1, 1918 to Mar. 31, 1919 (subject to revision)	TOTAL
	£	£	£	£	£	£
Seccotine	—	—	43	104	—	147
Shirts	63,223	591,897	153,242	809,768	2,176,582	3,794,712
Soap	—	1,525	—	—	—	1,525
Stout	—	1,553	4,089	41,274	—	46,916
Stretchers, Ambulance	—	6,009	11,605.	18,605	92,543	128,762
Tents and Tent parts	—	5,762	—	—	—	5,762
Tinware	44	—	—	2,969	6,877	9,890
Tobacco & Cigarettes	15,848	104,764	102,744	45,517	30,307	299,180
Tools	—	493	—	—	—	493
Waggons, G.S.	—	1,800	—	—	—	1,800
Wax	—	—	79	140	372	591
Woodware	17,388	79,278	93,498	41,016	—	231,180
Wool, Fleece[1]	—	—	829,490	1,089,026	1,071,098	2,989,614
Wool Skin[1]	—	—	73,931	255,234	258,953	588,118
GRAND TOTAL	£2,273,311	£4,128,520	£3,937,164	£6,726,575	£7,629,785	£24,695,355

NOTE.—These figures represent the expenditure in Ireland. In the case of Clothing and some other items the value of the contracts includes the value of the material purchased by the Contractors from the Department, and to the extent to which this material was manufactured in Ireland the Department's expenditure on it is also included in the Statement as a separate item.

The Statement does not include the following:

Local Purchase Orders.

Term Contracts for Building, Maintenance Work (approximate value £65,000 per annum.)

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[1] Payments made.

APPENDIX V—*continued*.

As far as I have been able to ascertain these contracts were placed with about 252 Irish firms, 160 of which were stuated in Ulster, 64 in Leinster, and the remainder, viz. 28, in Munster and Connaught.

The Appropriation Accounts show that the following total sums were expended by the Army for Supplies and Clothing in the years mentioned below, viz.:

Year ended March 31, 1915	£86,103,619
,, ,, ,, 1916	212,960,815
,, ,, ,, 1917	251,788,423
,, ,, ,, 1918	383,588,978
TOTAL	£934,441,835

Amount expended in Ireland from August 4, 1914, to March 31, 1919 (i.e. four years and eight months) £24,695,355

APPENDIX VI

Following are particulars of legal and other actions taken, up to the end of the year 1919, by the Irish Industrial Development Association (Incorporated), of 102-103, Grafton Street, Dublin, against persons detected in applying, or attempting to apply, Irish origin to non-Irish goods.

PROSECUTIONS.

The chief prosecutions undertaken by the Association were the following:—

1. A Belfast firm; for selling non-Irish notepaper as Irish. Result: Conviction; fined £5 and £1 costs.
2. A Dublin firm; for selling non-Irish wrapping-paper as Irish. Result: Defendants pleaded guilty and paid £15 15s. costs.
3. A Kentish Town (London) firm; for selling non-Irish cloths as Donegal tweed. Result: Convicted; fined £20 and £20 5s. costs.
4. A London firm; for selling French crochet as Irish. Result: Convicted; fined £20 and £5 5s. costs.
5. A London firm; for selling cotton handkerchiefs as Irish linen. (Boxes were branded with the Irish Trade Mark.) Result: Convicted; fined £20 and £20 costs.
6. A number of stallholders at the Shepherd's Bush Exhibition, London; for selling miscellaneous non-Irish articles as Irish. Result: Convicted; fined £15 and £5 5s. costs.
7. A Manager of the Dublin Branch of a Liverpool firm; for selling English-made candles as Irish. Result: Convicted; fined £1 and £10 costs.
8. A Corofin (Co. Clare) firm; for selling English-made calico as Irish. Result: Convicted; fined £1 and £1 costs.
9. A Dublin firm; for selling brown paper as Irish. Result: Owing to conflict of opinion amongst expert witnesses this case was dismissed on its merits.
10. A Belfast firm; for applying Irish emblems, etc., to non-Irish notepaper. Result: The Court being equally divided, no decision was given. The defendants having given an undertaking during the course of the trial that they would discontinue the practice in question, the Association did not apply for a new trial.

11. The Manager of the Dublin Branch of an English firm; for selling English ties as Irish. Result: Convicted; fined £10 and £10 costs.

12. The Dublin Branch of an English firm; for describing the cloth of a man's suit as Irish, and refusing to refund deposit. The customer having discovered that the cloth in question was not Irish, refused to take delivery of the suit. Result: Decree obtained for the refund of deposit, together with costs.

13. A Kildysart (Co. Clare) firm; for selling English-made towels as Irish. The firm proved, in court, that they had ordered "Irish" towels from the wholesale firm who supplied the goods. Result: The latter firm undertook to pay the Association £12 12s. costs, and the former gave an undertaking to refund £2 2s. to the local Board of Guardians.

14. Finding that a trader in Waterford was advertising and selling Bristol-made boots as "Governey of Carlow's Boots," we instituted legal proceedings against him, with the result that he was convicted, fined £2, and we were given £10 costs.

AMBIGUOUS TITLES.

Following is a list of cases where the offenders gave the Association undertakings to discontinue using Irish titles or designs in respect of non-Irish goods:—

15. Yorkshire firm ("Donegal" Tweeds).
16. English Tobacco Syndicate ("Irish" Home-grown Plug).
17. Bradford firm ("Irish" Blankets).
18. North of Ireland firm ("Ireland" to English cloths).
19. Dublin firm (Bicycle Transfers in Gaelic characters).
20. London firm ("Irish Rock" Sweets).
21. Manchester firm ("Irish Lace Thread" altered to Thread for Irish Lace).
22. Scotch firm ("Hibernian" Boots).
23. Manchester firm ("Lismore" Caps).
24. Glasgow firm ("Shamrock" Cream Powder).
25. Dublin firm ("Irish Majestic Cycles").
26. Manchester firm ("Harp" and "Shamrock" Sewing Cottons).
27. Glasgow firm ("St. Patrick" Postcards).
28. London firm ("Donegal" Knitting Yarns).
29. Glasgow firm ("Gaelic," together with a picture of O'Connell's Statue, Boot-laces).
30. Manchester firm ("Killarney," with Map of Ireland, Sheets and Pillow-cases).
31. Birmingham firm ("Highbury Donegal Tweeds").
32. Manchester firm ("Hibernian" and "Pure Super-Irish Wool" Blankets).

33. Belfast firm (Irish Titles and Emblems to Notepaper).
34. Bristol firm (" Shamrock " Brushes).
35. Manchester firm (All-wool " Irish " Blankets).
36. Co. Cork firm (non-Irish boots branded ambiguously).
37. Scotch firm (" Olde Irish Vellum " Notepaper).
38. Leeds firm (" Connaught," " Shannon " and " Erin " Cloths).
39. Gloucester firm (" Shamrock " Hairpins).
40. Bristol firm (" Irish " Brushes).
41. Canadian firm (Irish Trade Mark design used in advertisements).
42. Dublin firm (" Irish Mail " Mail-cars).
43. London firm (" Ireland " on Boxes of Disinfectants).
44. Liverpool firm (" Shamrock " Brand).
45. London firm (" Shamrock " Brand).
46. London firm (" Tara Hall Irish Toilet " Perfumes).
47. Liverpool firm (" Dublin Rock " Sweets).
48. Dublin firm (" Erin-go-Bragh " Repair Outfits).
49. York firm (" Shamrock " Chocolates).
50. Dublin firm (" Faugh-a-Ballagh " Razors).
51. Bradford firm (" Irish " Whippletrees and " Shamrock " Ploughs).
52. Waterford firm (" Cycle Manufacturers ").
53. Dublin firm (" Kynoch of Arklow " Racer Cycles).
54. Northampton firm (" Shamrock " Boots).
55. Manchester firm (" Shamrock " Cloth Polishers).
56. Leeds firms (" Avoca " and " Wicklow " Cloths).
57. London firm (" Faugh-a-Ballagh " Sweets).
58. Dublin firm (" Shamrock " Stylo Pen).
59. London firm (" Shamrock " Combs).
60. Dublin firm (" Shamrock " Watches).
61. Derby firm (" Blarney Castle " Paints).
62. Manchester firm (" Gaelic Make " Shirts).
63. Dublin firm (" Dublin " Blue).
64. Manchester firm (" Kerry " Overcoat).
65. Dublin firm (" Leinster Wax " Candles).
66. Belfast firm (" Shamrock " and " Belfast " Incandescent Mantles).
67. At our request a Dublin firm of importers secured that imitation Belleek-ware jugs sent into this country unbranded should, in future, be branded with the country of origin.
68. Dublin firm (" Acushla " Packets of Stationery).
69. London firm (" Irish Poplin " Notepaper).
70. London firm (" Erin " Wax Candles).
71. Brussels firm (" Irish Linen " Notepaper).
72. London Agent for a German firm and one of their Dublin wholesale customers (" Irish Wonder " Incandescent Mantles).

73. New York firm (" Irish Linette " Material).

74. Bristol firm undertook to discontinue describing bacon as " Our Bacon " in circulars to Irish institutions, the bacon in question being the produce of foreign hogs.

75. Newcastle-on-Tyne firm (" Shamrock ").

76. Belfast firm undertook to cease using the words " Support Home Industry " and " Sole Proprietors," and to substitute the words " Packed by " in respect of Cocoa which they import in bulk and merely pack in Ireland.

77. The Dublin Agent for a London firm of paper-leaf makers, who contemplated using the title " Shamrock " as a trade mark for this article, abandoned this project when the Association intervened.

78. A Northampton firm were detected by us in selling boots of their manufacture which were branded with the title " Ould Erin." On our giving them the option of discontinuing this misleading practice or fighting the matter out in the courts they chose the former alternative and notified all their customers to discontinue selling these boots until they had erased the brand in question from them.

79. An Irish firm who had been in the habit of branding both Irish-made and imported paper with the title " Belfast Bond," gave us an undertaking to confine this title in future to Irish-made paper.

80. A local firm forwarded us patterns of paper which had been supplied to them, for re-sale, as Irish-made paper. On examination this paper proved to be of cross-channel manufacture. The original sellers contended that an innocent mistake had occurred, took back the paper in question, and substituted Irish-made paper in its stead.

81. A Belfast firm gave us an undertaking to discontinue applying the title " Shamrock " to non-Irish made lamps ; and, further, undertook to destroy all printed matter, etc., in their possession bearing this title.

82. A Birmingham firm gave us an undertaking to discontinue advertising and describing as " Irish " Dry Ginger Ale, a mineral water made by them in England.

83. A Dublin firm gave us an undertaking to discontinue using the title " Shamrock " in connexion with non-Irish table salt.

84. A Bolton (Lancashire) firm undertook to discontinue applying the title " Shamrock " to tins containing baking-powder of non-Irish manufacture.

85. We drew the attention of the Ministry of Food, London, to the fact that South African Maize Meal was being sent into Ireland described as " Galway Meal." The Ministry informed us that they had taken the necessary action to prevent a repetition,

and that in future this article would be described as "South African Straight Run Maize Meal."

86. A London firm gave us an undertaking to cease describing as "Belfast Linen" Notepaper, paper which was of non-Irish manufacture.

87. A Dublin firm of wholesale stationers gave us an undertaking to discontinue using the title "Dublin" and the words "Irish manufacture" in respect of writing pads made of imported paper and merely put together in this country.

88. A Dublin company undertook to discontinue applying the title "The Dublin" to non-Irish manufactured gas mantles.

89. A Liverpool firm were stopped by us from continuing to describe an English-produced album of views of Dublin as the "Shamrock" Album.

TRADE MARK ACTIONS

Amongst the legal actions taken by the Association to prevent firms from registering Irish titles, emblems, or designs in respect of non-Irish made goods, are the following, viz :—

90. A Cardiff firm applied to the Board of Trade to register the title "Slainte" in respect of non-Irish milled flour. We opposed this application, and, after the usual proceedings, succeeded in preventing registration.

91. A London firm applied to the Board of Trade to register the title "Shamrock & Co." together with a representation of the emblem in respect of non-Irish postcards. We opposed their application, and in due course the Board of Trade refused them registration. They then appealed the case, which was subsequently heard by Lord Justice Warrington in the London Chancery Court. We fought the case there and the learned Judge decided in our favour. He also decided that the title or emblem "Shamrock" on an article was indicative of Irish origin. As a result of this judgment the Board of Trade have since made rules (1) refusing to register this mark in respect of non-Irish goods, and (2) refusing to give any Irish applicant the exclusive use of it as a trade mark.

92. A Victoria (Australia) firm applied to the Commonwealth Trade Mark Office to procure registration of the title "Derry," together with a representation of the Shamrock, in respect of non-Irish shirts and clothing. We opposed this application, and in due course succeeded in securing its rejection.

93. A Glasgow firm applied to the Trade Mark Office to register the word "Colleen," and an Irish design, in respect of blouses, etc. made in Scotland. We filed an opposition, and after

the case had reached a certain point the Glasgow firm abandoned their application.

94. A Belfast firm applied to the same office to register the following as a trade mark, viz., "The Erin Household Linen Company, Franklin Street, Belfast." We asked them to amend their application so that the trade mark would only apply to goods made in Ireland, of Irish linen. This they declined to do, and we therefore filed an opposition to their application. Eventually they abandoned their attempt to register this trade mark.

95. We also opposed an application made to the Argentine Trade Mark Office by a local firm to register a mark closely resembling the Irish Trade Mark. The applicants thereupon discontinued proceedings, with the result that their application fell through.

96. Another important action fought by us, in conjunction with the Irish Flour Millers' Association, was an opposition which we filed to an application made, jointly, by a Liverpool firm of flour millers and a Sligo firm of flour importers, to register a design which included a representation of the Arms of Connaught together with the words "Connaught" and "Connaught's Pride" in Gaelic characters, in respect of other than Irish-milled flour. The Comptroller of Trade Marks decided this case in the Association's favour, and refused to register the mark in the name of the applicants. Thereupon the latter served notice of appeal to the London Chancery Court, but when we served notice on them that we intended applying to cross-examine them when the appeal case was being tried, they withdrew the action and paid all the costs of the two actions.

97. Finding that an Irish firm who are associated with a firm in England had applied to register two Irish titles as trade marks, we requested them to amend their applications by adding the words, "All such goods being of Irish manufacture," thereby ensuring that at no time in the future could these marks be applied to goods other than of Irish manufacture. After some little hesitation they amended their applications in the manner required by us.

98. For three years our Annual Reports contained references to what became known as "The Barrett Case," the attempt by a Mr. Denis D. Barrett, of Terra Haute, Indiana, to secure registration of the Irish Trade Mark in the United States of America in his own name and for his own use. In spite of the fact that the opposition proceedings instituted by us proved successful, both in the Trade Mark Department and in the case of Barrett's appeal to the U.S. Commissioner of Patents, he put us to the trouble of contesting the case in the Court of Appeals at Washington, where in November, 1913, his final appeal was

considered. Subsequently the Court issued their judgment, signed by the Chief Justice. They ousted Barrett's action as one based on an attempt to deceive, as well as on other grounds. This judgment finally disposed of what had proved an exceedingly tedious, troublesome, and expensive piece of litigation. The attempt made by Barrett to pirate the Irish Trade Mark failed, and our claim to the exclusive control of that mark, on behalf of genuine Irish manufacturers, has been upheld by the U.S.A. Court of Appeals. Our costs in this series of actions exceeded £1,000.

99. A London firm applied to the Trade Mark Office to register the word "Shillelagh." As a result of our intervention they amended their application in such a manner as to confine the use of this title to Irish-made goods only.

100. A Manchester firm applied to the Trade Mark Office to register, as a trade mark, a representation of a "Stage Irishman," together with the word "Pat." We served notice on them of our intention to oppose this application if they persisted in proceeding with it. Finally, they decided to abandon the application and cancelled same.

101. An Ohio, U.S.A., firm applied to the Trade Mark Office at Washington to register, in their name, a design which included the words "Irish Washing Soda," although it was never intended to be applied to an Irish product. We instructed our New York solicitors to oppose the application, and, after the usual preliminary procedure had been disposed of, the case was argued by counsel on both sides before the Examiner of Interferences at Washington. This official subsequently issued his judgment, refusing permission to the applicants to register the title referred to. They (the applicants) appealed from this decision to the Registrar of Trade Marks, but when the case came on for hearing before that official they amended their application by eliminating the word "Irish," thus complying with the Association's demand.

102. A Melbourne, Australia, firm applied to the Commonwealth Trade Mark Office to register a "Shamrock" trade mark in respect of toilet preparations, including soaps. We opposed this application, but the applicants fought the case until just prior to the time when it should come before the Registrar for verbal argument by the representatives of both parties. At this stage they (the applicants) withdrew their application to register.

103. A Liverpool firm applied to the Trade Mark Office to register, in their name, the title "Colleen" in respect of non-Irish milled flour. Our Association opposed this application, and the Irish Flour Millers' Association and Messrs. James Bannatyne & Sons, Ltd., of Limerick, associated themselves with our opposition. When the matter had reached a certain

stage the Liverpool firm withdrew their application and abandoned their effort to register this mark.

104. A Birmingham firm applied to register a design, as a trade mark, representing an Irish Colleen looking through an Irish Harp, in respect of earthenware and porcelain. We notified them that unless they withdrew this application we should oppose it. They thereupon withdrew the application.

105. A Belfast firm applied to register two Irish titles as trade marks in respect of soaps, etc. After representation by us they amended their applications by undertaking to confine the use of these titles to Irish-manufactured goods.

106. A Middlesboro' firm has just applied to the Trade Mark Office to register the title " Blarney Stone " in respect of manufactured tobacco. We have notified them that unless they withdraw this application, or amend it so as to confine the use of the proposed mark to Irish-manufactured tobacco, we shall oppose it.

107. A Belfast firm received an order some months ago to supply a quantity of roll admission tickets, each ticket to be branded with the Irish Trade Mark. Instead of passing this order over to an Irish printer of these tickets, who is an authorised user of the mark, they sent it to a firm in Hull to execute, and supplied the latter firm with block of the Irish Trade Mark to use in printing the tickets. We have instituted proceedings in the Dublin Chancery Court against the Belfast firm, applying for an injunction to restrain them from using the mark, and the case will be tried in the course of the present term.

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